HCD-HPZ7/HPZ9

SERVICE MANUAL

Ver. 1.1 2005.05

Photo : HCD-HPZ7

US Model
HCD-HPZ9
Canadian Model
HCD-HPZ7/HPZ9
AEP Model
UK Model
HCD-HPZ7
E Model
HCD-HPZ7/HPZ9
Australian Model
HCD-HPZ9

HCD-HPZ7/HPZ9 are the Amplifier, CD player, Tape Deck and Tuner section in CMT-HPZ7/HPZ9.

US and foreign patents licensed from Dolby Laboratories.

CD Section	Model Name Using Similar Mechanism	NEW
	CD Mechanism Type	CDM82C-F1BD83
	Base Unit Name	BU-F1BD83
	Optical Pick-up Name	KSM-215DCP
TAPE Section	Model Name Using Similar Mechanism	NEW
	Tape Transport Mechanism Type	CMAL5Z225A

SPECIFICATIONS

Amplifier section

For the United States model

AUDIO POWER SPECIFICATIONS

HCD-HPZ9

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:
With 6-ohm loads, both channels driven, from 120 – 10,000 Hz: rated 85 watts per channel minimum RMS power, with no more than 10% total harmonic distortion from 250 milliwatts to rated output.

HCD-HPZ7

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:
With 6-ohm loads, both channels driven, from 120 – 10,000 Hz: rated 50 watts per channel minimum RMS power, with no more than 10% total harmonic distortion from 250 milliwatts to rated output.

HCD-HPZ9

North American model:

Continuous RMS power output (reference): 85 + 85 W (6 ohms at 1 kHz, 10% THD)

Other models:

The following measured at AC 240 V, AC 220 V or AC 120 V

DIN power output (rated): 53 + 53 W (6 ohms at 1 kHz, DIN)

Continuous RMS power output (reference): 70 + 70 W (6 ohms at 1 kHz, 10% THD)

HCD-HPZ7

North American model:

Continuous RMS power output (reference): 50 + 50 W (6 ohms at 1 kHz, 10% THD)

European model:

DIN power output (rated): 50 + 50 W (6 ohms at 1 kHz, DIN)

Continuous RMS power output (reference): 60 + 60 W (6 ohms at 1 kHz, 10% THD)

Music power output (reference): 100 + 100 W (6 ohms at 1 kHz, 10% THD)

Other models:

The following measured at AC 220 – 240 V, 50/60 Hz

DIN power output (rated): 45 + 45 W (6 ohms at 1 kHz, DIN)

Continuous RMS power output (reference): 50 + 50 W (6 ohms at 1 kHz, 10% THD)

Inputs

ANALOG IN (stereo mini jack): Sensitivity 250 mV, impedance 47 kilohms

Outputs

CD DIGITAL OUT: Optical Wavelength: 660 nm

PHONES (stereo mini jack): accepts headphones with an impedance of 8 ohms or more

SPEAKER: accepts impedance of 6 to 16 ohms

— Continued on next page —

MICRO HI-FI COMPONENT SYSTEM

9-879-566-02
2005E16-1
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Sony Corporation
Personal Audio Group
Published by Sony Engineering Corporation

SONY®

CD player section

System	Compact disc and digital audio system
Laser Diode Properties	Emission duration: continuous Laser Output*: Less than 44.6 µW

* This output is the value measurement at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block with 7 mm aperture.

Frequency response	20 Hz – 20 kHz (±0.5 dB)
Wavelength	780 – 790 nm

Tape deck section

Recording system	4-track 2-channel stereo
Frequency response	50 – 13,000 Hz (±3 dB), using Sony TYPE I cassettes

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range	87.5 – 108.0 MHz
Antenna	FM lead antenna
Antenna terminals	75 ohms unbalanced
Intermediate frequency	10.7 MHz

AM tuner section

Tuning range	
Pan-American model:	530 – 1,710 kHz (with the tuning interval set at 10 kHz) 531 – 1,710 kHz (with the tuning interval set at 9 kHz)
European model:	531 – 1,602 kHz (with the tuning interval set at 9 kHz)
Other models:	530 – 1,710 kHz (with the tuning interval set at 10 kHz) 531 – 1,602 kHz (with the tuning interval set at 9 kHz)
Antenna	AM loop antenna
Antenna terminals	External antenna terminal
Intermediate frequency	450 kHz

General

Power requirements	
North American model:	120 V AC, 60 Hz
European model:	230 V AC, 50/60 Hz
Other models:	120 V, 220 V or 230 – 240 V AC, 50/60 Hz Adjustable with voltage selector
Power consumption	
HPZ9	
North American model:	145 W
Other models:	125 W
HPZ7	
North American model:	85 W
European model:	95 W 0.25 W (in Power Saving Mode)
Other models:	90 W
Dimensions (w/h/d) (excl. speakers)	Approx. 198 × 275 × 341 mm
Mass (excl. speakers)	
Amplifier/Tuner/Tape/CD section:	
HPZ9 :	7.7 kg
HPZ7 :	7.3 kg

Design and specifications are subject to change without notice.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COM- POSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 °C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage.
Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes.). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

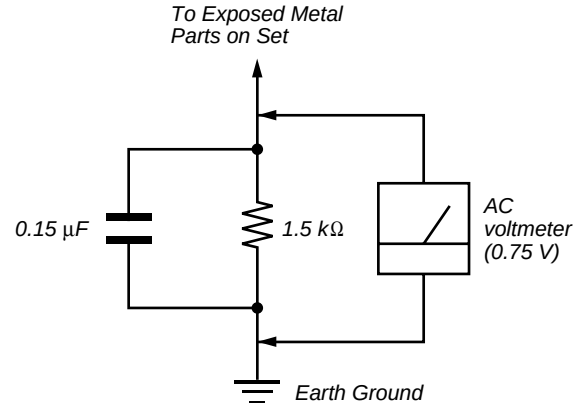

Fig. A. Using an AC voltmeter to check AC leakage.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

This appliance is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT MARKING is located on the exterior.

Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

LASER DIODE AND FOCUS SEARCH OPERATION CHECK

Carry out the "S curve check" in "CD section adjustment" and check that the S curve waveforms is output three times.

UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size)

: LEAD FREE MARK

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40 °C higher than ordinary solder.
  Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
  Soldering irons using a temperature regulator should be set to about 350 °C.
  Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
  Unleaded solder is more viscou-s (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
  It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

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SECTION 1
GENERAL

This section is extracted from instruction manual.

List of button locations and reference pages

Main unit

ALPHABETICAL ORDER

A – I

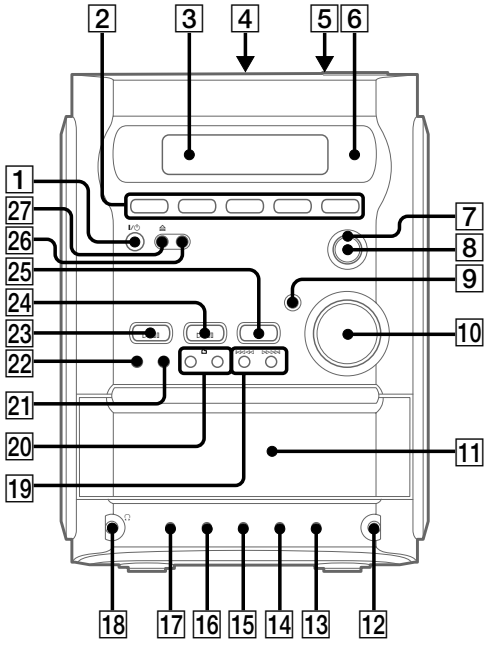
ANALOG IN jack 12 (22, 24, 28)
CANCEL 21 (15)
Cassette compartment 4 (21)
CD SYNC 15 (22)
DISC 1 – 5 2 (13, 14, 16, 22)
DISC SKIP/EX-CHANGE 26 (13, 14, 17, 22)
Disc tray 11 (13)
Display window 3
DSGX 9 (23)
FM MODE 16 (20)
FUNCTION 22 (14, 16, 18, 19, 21, 22, 29)
ILLUMINATION 13 (12)

J – Z

Jog dial 7 (15, 17)
PHONES jack 18
PLAY MODE 17 (14, 16, 22)
PUSH ENTER 8 (15, 17)
REC PAUSE/START (record) 14 (22)
Remote sensor 6
REPEAT 16 (16)
TUNER/BAND 25 (18, 19)
TUNING MODE 17 (18, 19)
TUNE +/– 19 (18, 19)
VOLUME control 10

BUTTON DESCRIPTIONS

I/⏻ (power) 1 (11, 19, 32)
⏏ PUSH OPEN/CLOSE (tape open/close) 5 (21)
⏮◁◁/▷▷⏭ (rewind/fast forward, go back/go forward) 19 (14, 21, 23)
+/– (select group) 20 (14, 22)
■ (stop) 21 (12, 19, 22)
TAPE ▷ (play) 23 (21)
CD ▷II (play) 24 (14)
⏏ (CD open/close) 27 (13, 21)



Remote control

ALPHABETICAL ORDER

A – E

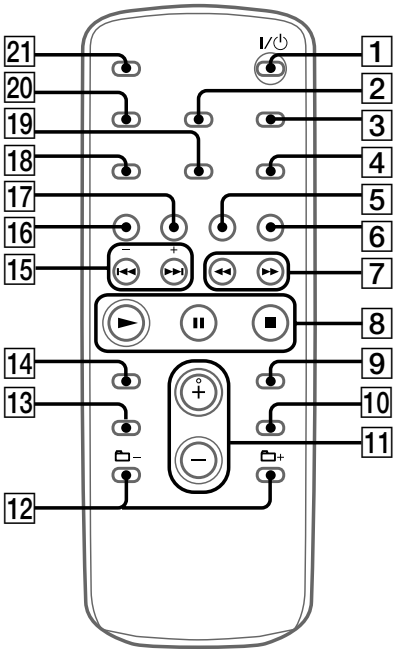
CD 17 (14, 16)
CLEAR 14 (17)
CLOCK/TIMER SELECT 2 (24, 25)
CLOCK/TIMER SET 3 (12, 24, 25)
DISC SKIP 10 (14, 16)
DISPLAY 20 (20, 26, 27)
ENTER 9 (12, 16, 18, 24, 25)
EQ 13 (23)

F – Z

FM MODE 4 (20)
FUNCTION 6 (14, 16, 18, 19, 21, 22, 29)
PLAY MODE 19 (14, 16, 22)
REPEAT 4 (16)
SLEEP 21 (23)
TAPE 16 (21)
TUNER BAND 5 (18, 19)
TUNER MEMORY 18 (18)
TUNING MODE 19 (18, 19)
VOLUME +/– 11 (24)

BUTTON DESCRIPTIONS

I/⏻ (power) 1 (12, 24)
◀◀/▶▶ (rewind/fast forward) 7 (14, 21)
► (play) 8 (14, 21)
II (pause) 8 (14, 21)
■ (stop) 8 (14, 21)
+/– (select group) 12 (14, 16)
I◀◀ /▶▶I (go back/go forward) 15 (12, 14, 23, 24)
+/– (tuning) 15 (18)



Setting the clock

Use buttons on the remote for the operation.

1 Press I/⏻ to turn on the system.

2 Press CLOCK/TIMER SET.

3 Press I◀◀ or ▶▶I repeatedly to set the hour.

4 Press ENTER.

5 Press I◀◀ or ▶▶I repeatedly to set the minute.

6 Press ENTER.

The clock starts working.

To adjust the clock

1 Press CLOCK/TIMER SET.

2 Press I◀◀ or ▶▶I repeatedly to select "CLOCK SET", then press ENTER.

3 Do the same procedures as step 3 to 6 above.

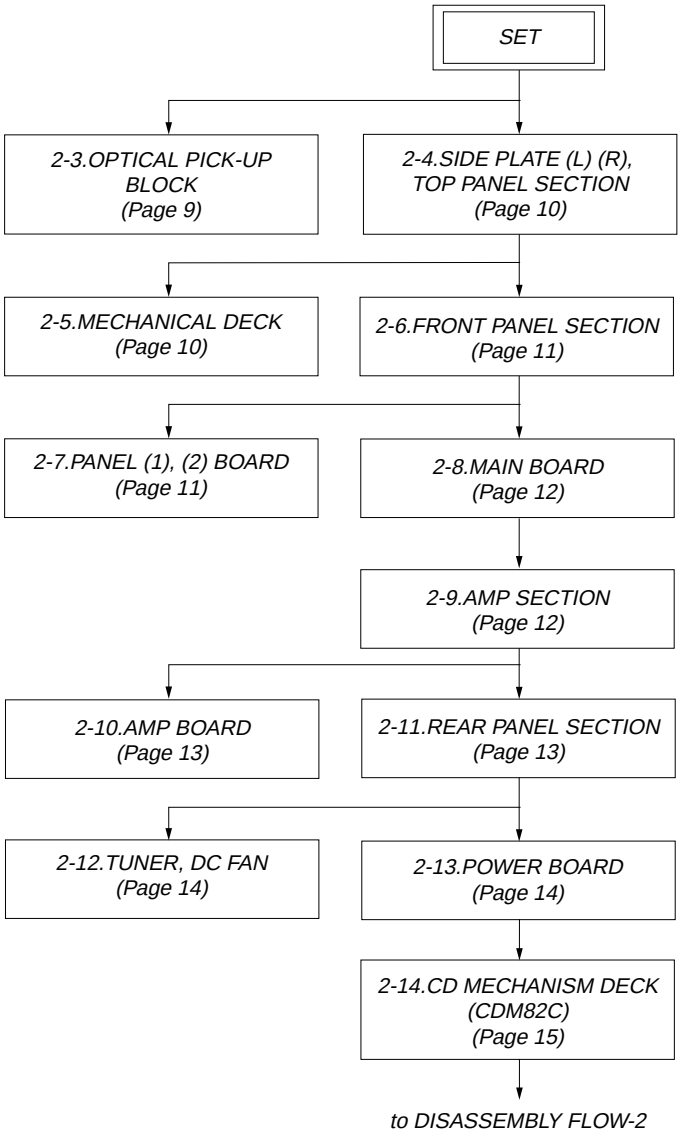
Note

The clock is not displayed in Power Saving Mode (page 26).

SECTION 2
DISASSEMBLY

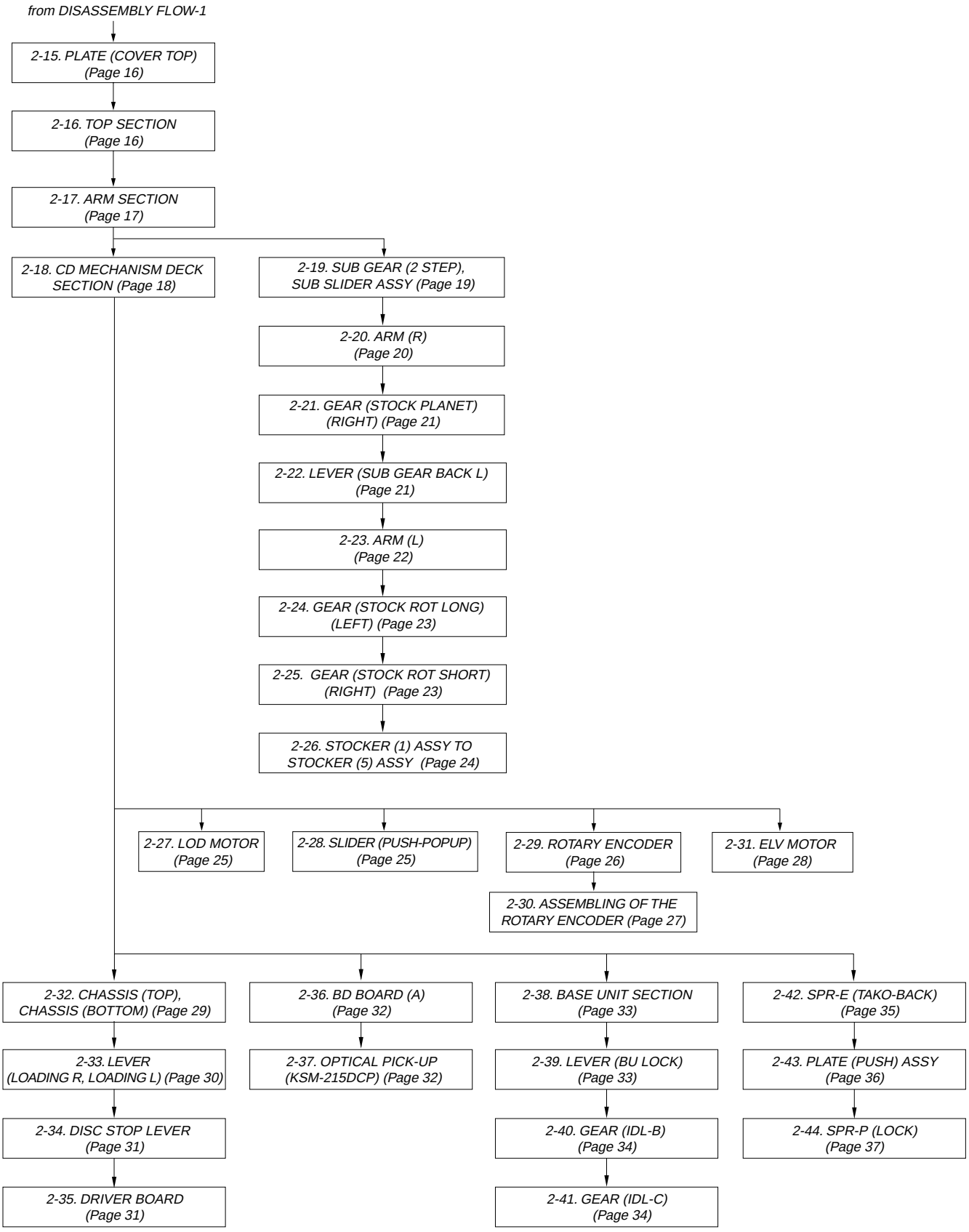
2-1. DISASSEMBLY FLOW-1

- This set can be disassembled in the order shown below.


SET
2-3.OPTICAL PICK-UP BLOCK (Page 9)
2-4.SIDE PLATE (L) (R), TOP PANEL SECTION (Page 10)
2-5.MECHANICAL DECK (Page 10)
2-6.FRONT PANEL SECTION (Page 11)
2-7.PANEL (1), (2) BOARD (Page 11)
2-8.MAIN BOARD (Page 12)
2-9.AMP SECTION (Page 12)
2-10.AMP BOARD (Page 13)
2-11.REAR PANEL SECTION (Page 13)
2-12.TUNER, DC FAN (Page 14)
2-13.POWER BOARD (Page 14)
2-14.CD MECHANISM DECK (CDM82C) (Page 15)
to DISASSEMBLY FLOW-2

2-2. DISASSEMBLY FLOW-2

- This set can be disassembled in the order shown below.


from DISASSEMBLY FLOW-1
2-15. PLATE (COVER TOP) (Page 16)
2-16. TOP SECTION (Page 16)
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2-20. ARM (R) (Page 20)
2-21. GEAR (STOCK PLANET) (RIGHT) (Page 21)
2-22. LEVER (SUB GEAR BACK L) (Page 21)
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2-28. SLIDER (PUSH-POPUP) (Page 25)
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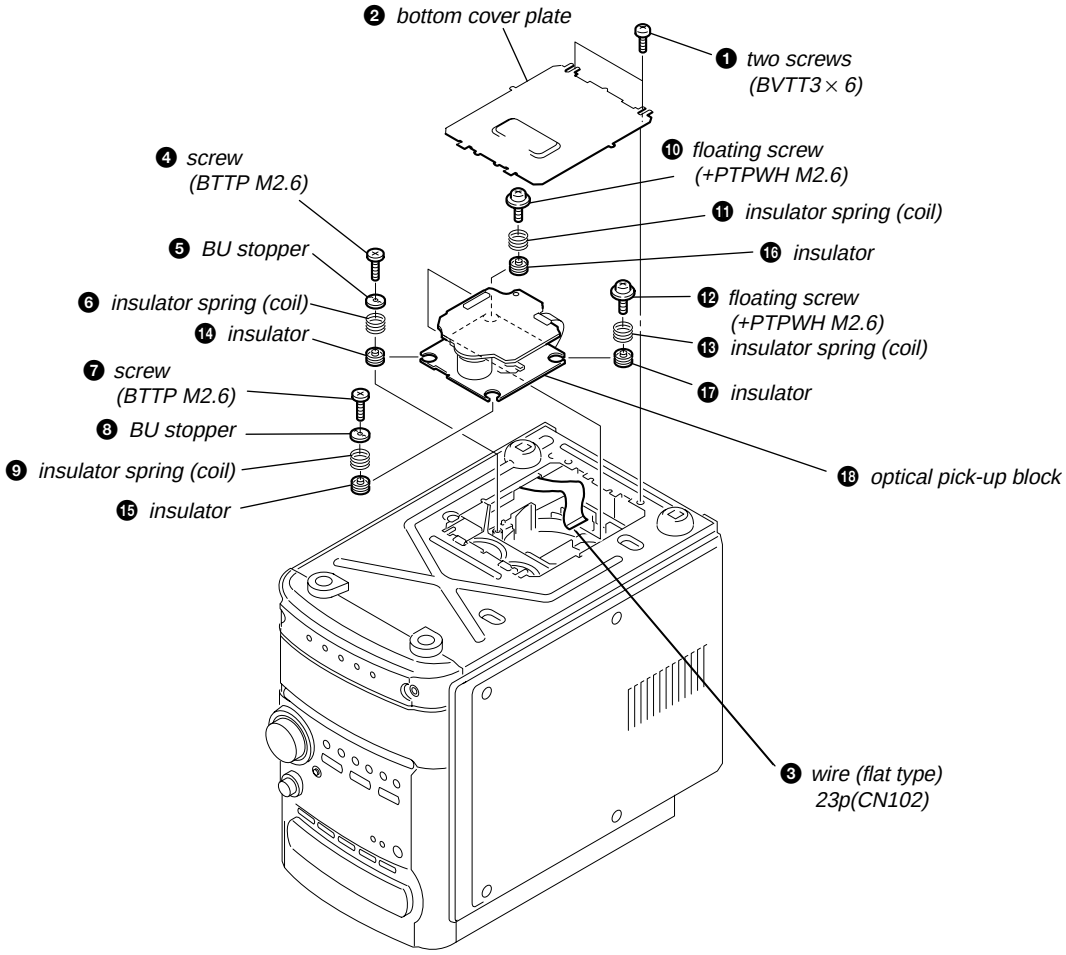
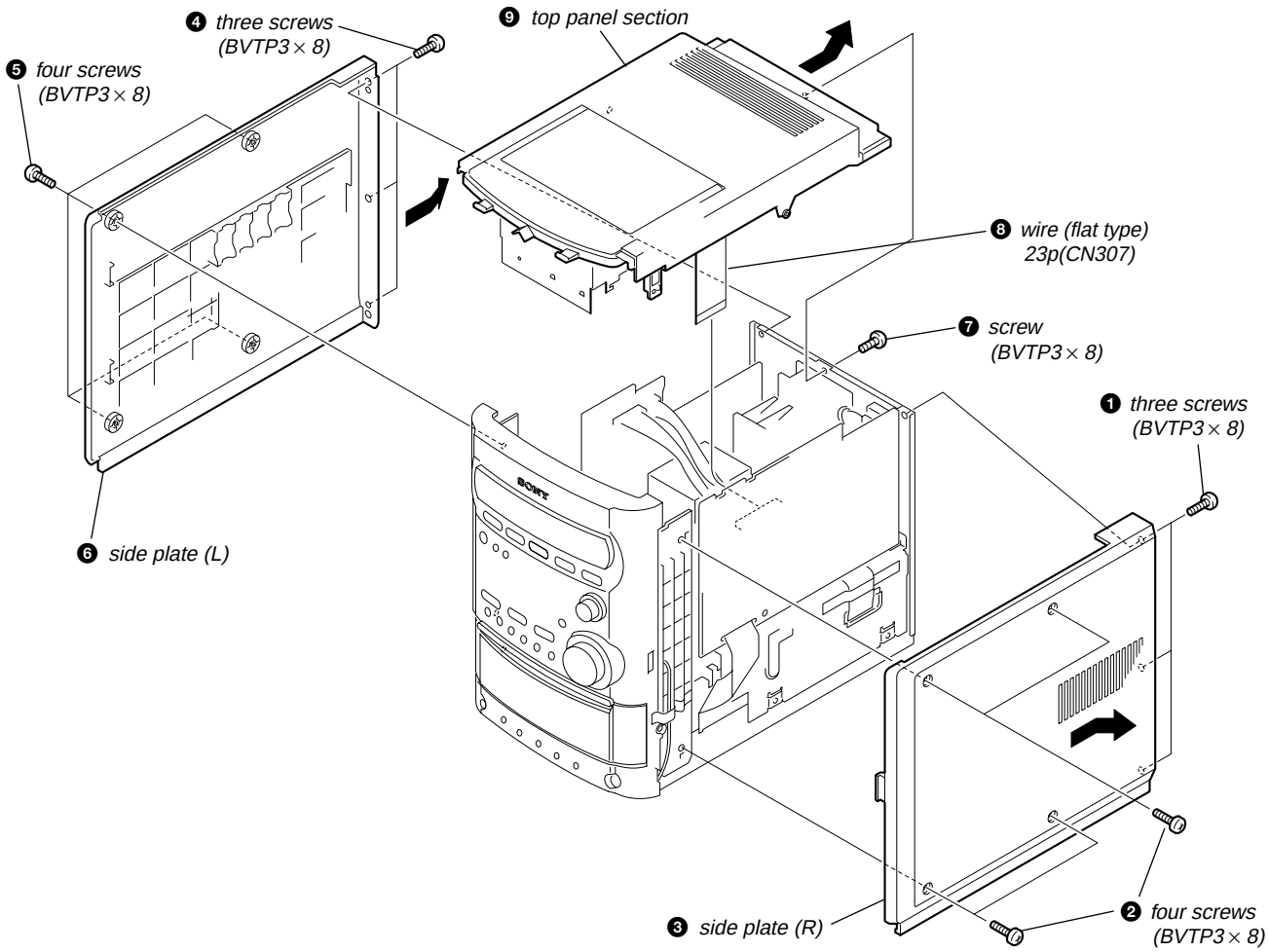
2-34. DISC STOP LEVER (Page 31)
2-35. DRIVER BOARD (Page 31)
2-36. BD BOARD (A) (Page 32)
2-37. OPTICAL PICK-UP (KSM-215DCP) (Page 32)
2-38. BASE UNIT SECTION (Page 33)
2-39. LEVER (BU LOCK) (Page 33)
2-40. GEAR (IDL-B) (Page 34)
2-41. GEAR (IDL-C) (Page 34)
2-42. SPR-E (TAKO-BACK) (Page 35)
2-43. PLATE (PUSH) ASSY (Page 36)
2-44. SPR-P (LOCK) (Page 37)

Note: Follow the disassembly procedure in the numerical order given.

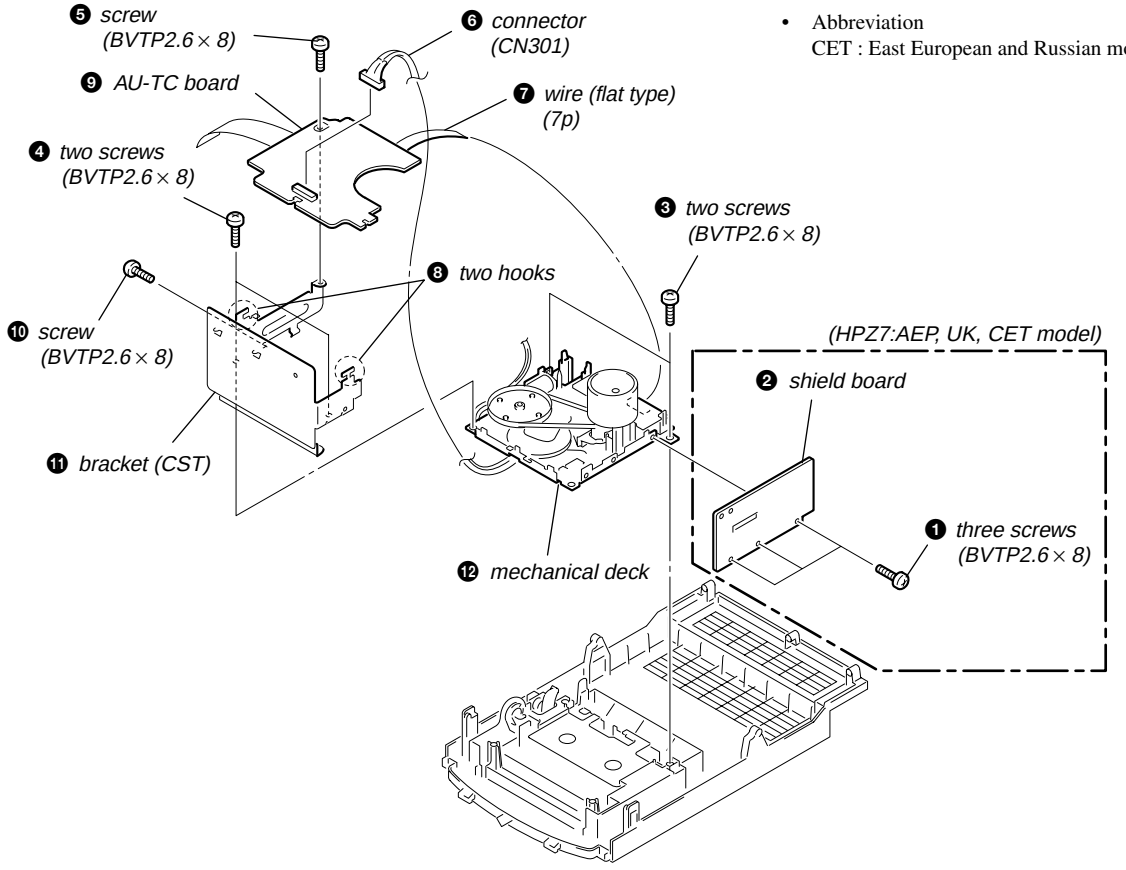
2-3. OPTICAL PICK-UP BLOCK



2-4. SIDE PLATE (L) (R), TOP PANEL SECTION

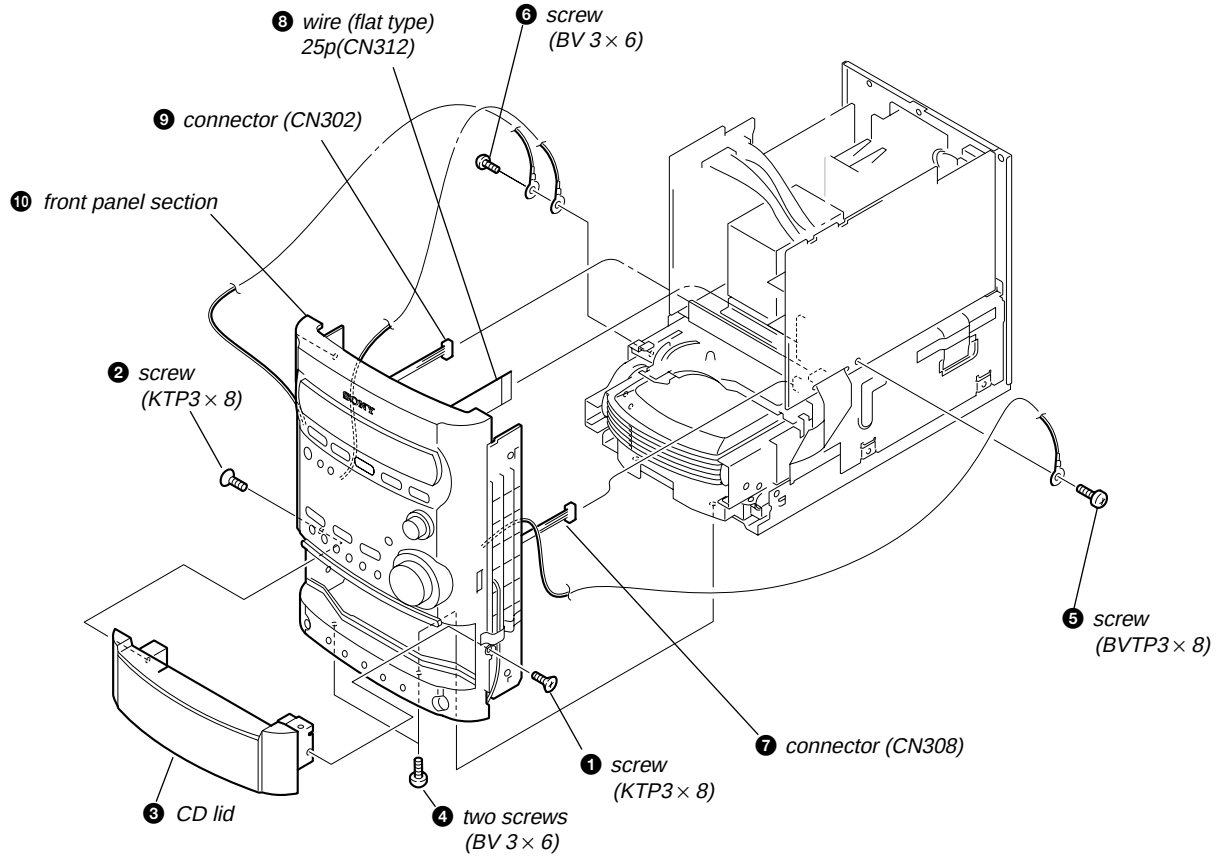

❹ three screws (BVTP3 × 8)
❾ top panel section
❺ four screws (BVTP3 × 8)
❽ wire (flat type) 23p(CN307)
❼ screw (BVTP3 × 8)
❶ three screws (BVTP3 × 8)
❻ side plate (L)
❸ side plate (R)
❷ four screws (BVTP3 × 8)

2-5. MECHANICAL DECK

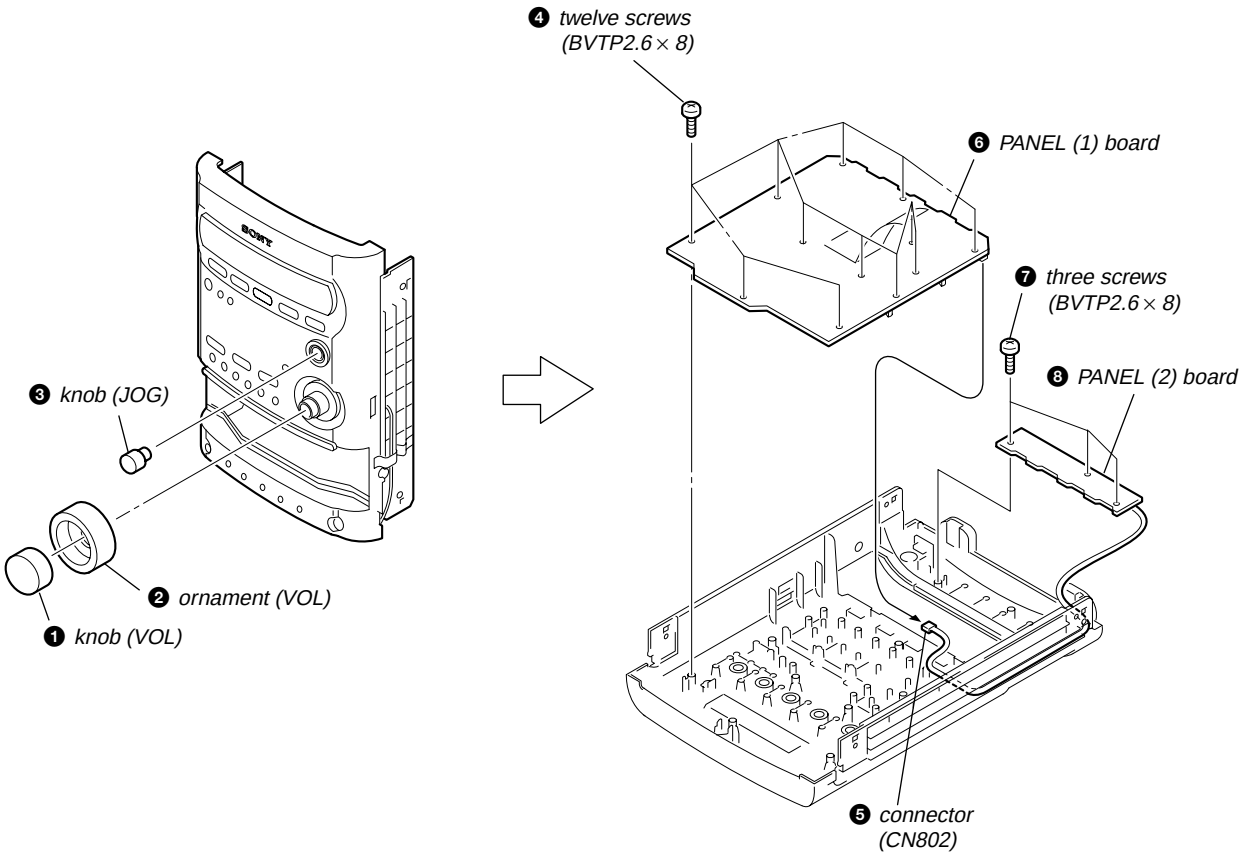

❺ screw (BVTP2.6 × 8)
❻ connector (CN301)
❾ AU-TC board
❼ wire (flat type) (7p)
❹ two screws (BVTP2.6 × 8)
❸ two screws (BVTP2.6 × 8)
❽ two hooks
❿ screw (BVTP2.6 × 8)
(HPZ7:AEP, UK, CET model)
❷ shield board
⓫ bracket (CST)
❶ three screws (BVTP2.6 × 8)
⓬ mechanical deck

• Abbreviation
CET : East European and Russian model.

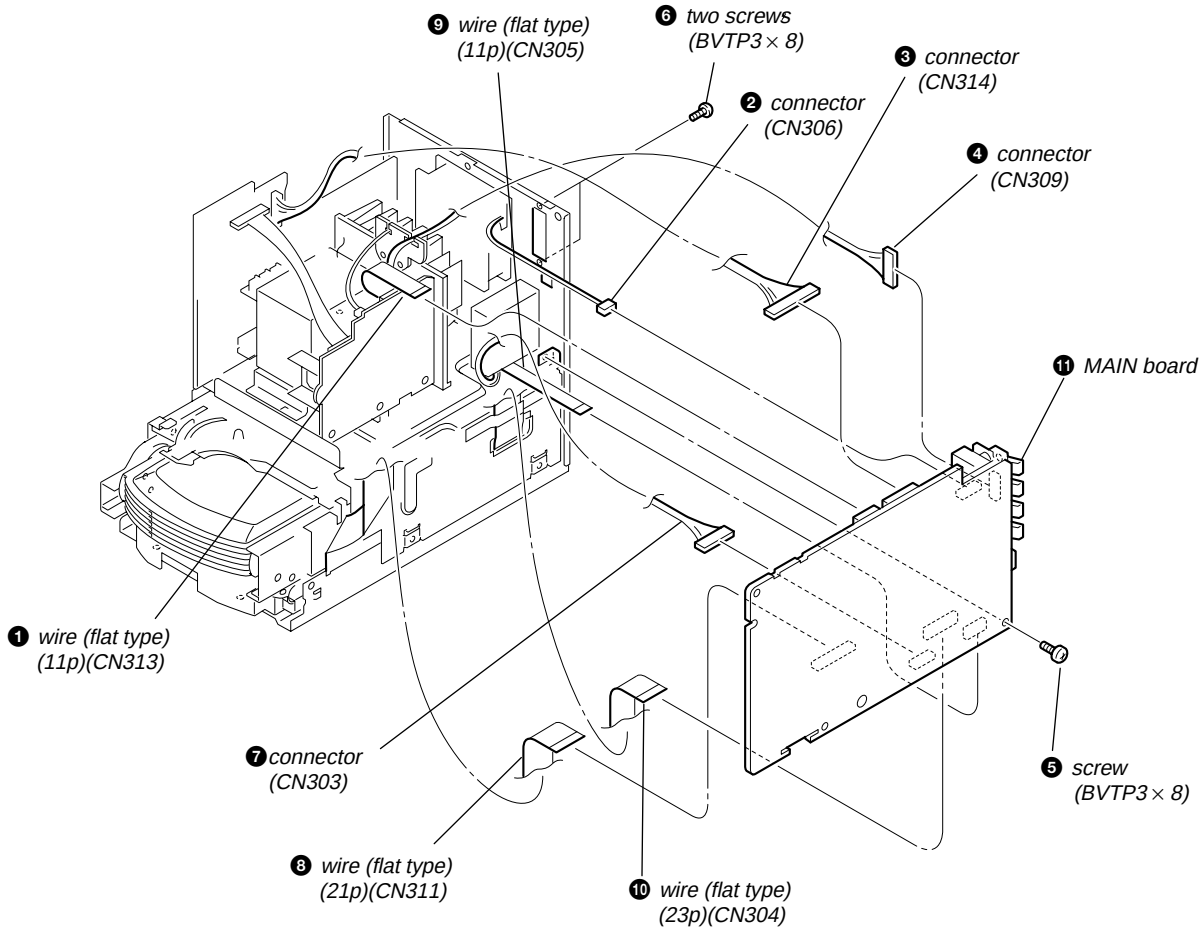
2-6. FRONT PANEL SECTION


❽ wire (flat type) 25p(CN312)
❻ screw (BV 3× 6)
❾ connector (CN302)
❿ front panel section
❷ screw (KTP3× 8)
❺ screw (BVTP3× 8)
❼ connector (CN308)
❶ screw (KTP3× 8)
❸ CD lid
❹ two screws (BV 3× 6)

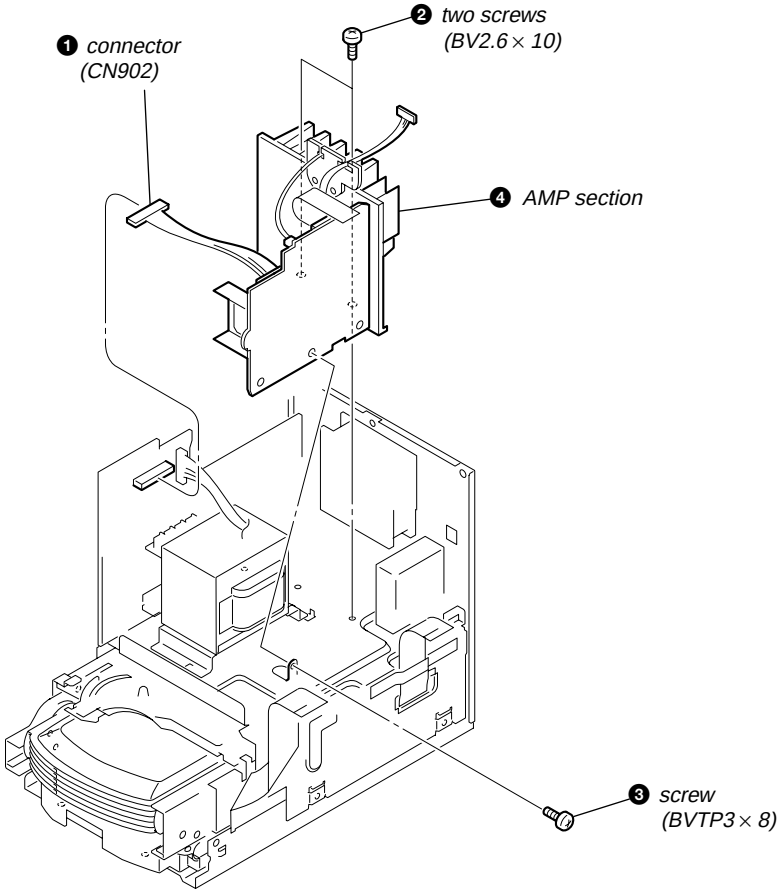
2-7. PANEL (1), (2) BOARD



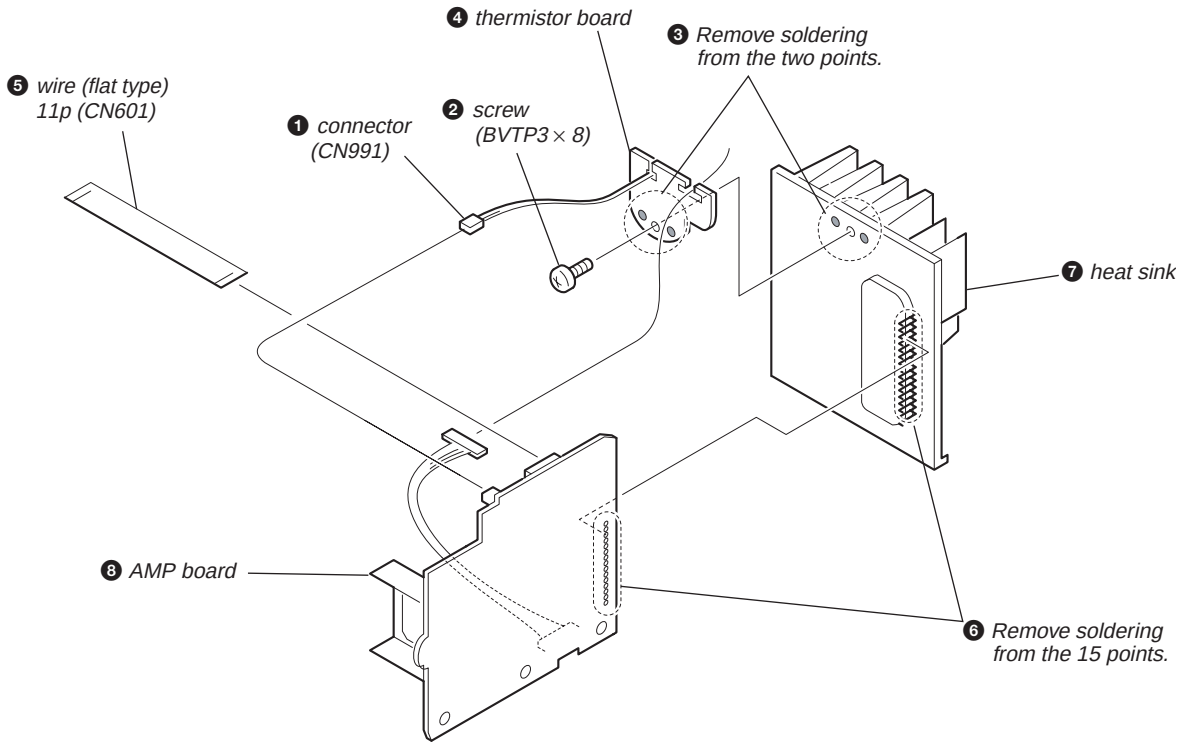
2-8. MAIN BOARD


❾ wire (flat type) (11p)(CN305)
❻ two screws (BVTP3 × 8)
❸ connector (CN314)
❷ connector (CN306)
❹ connector (CN309)
⓫ MAIN board
❶ wire (flat type) (11p)(CN313)
❼ connector (CN303)
❺ screw (BVTP3 × 8)
❽ wire (flat type) (21p)(CN311)
❿ wire (flat type) (23p)(CN304)

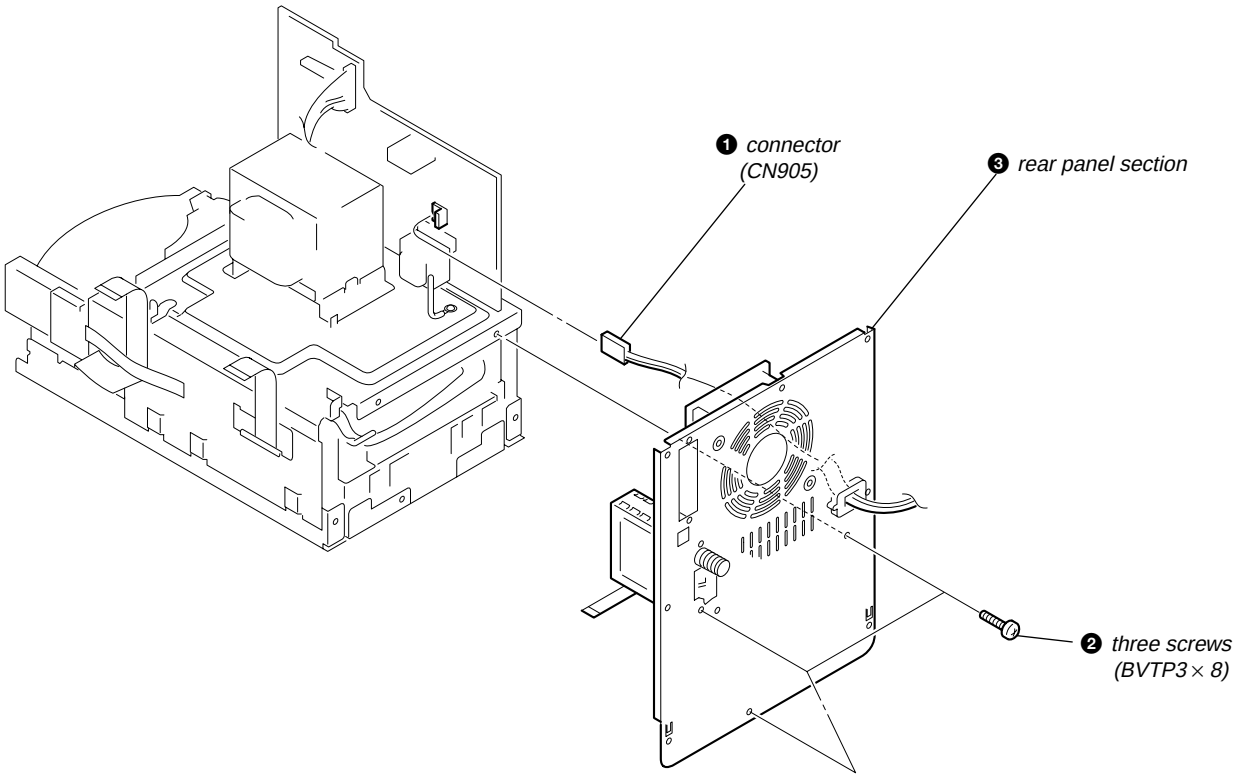
2-9. AMP SECTION



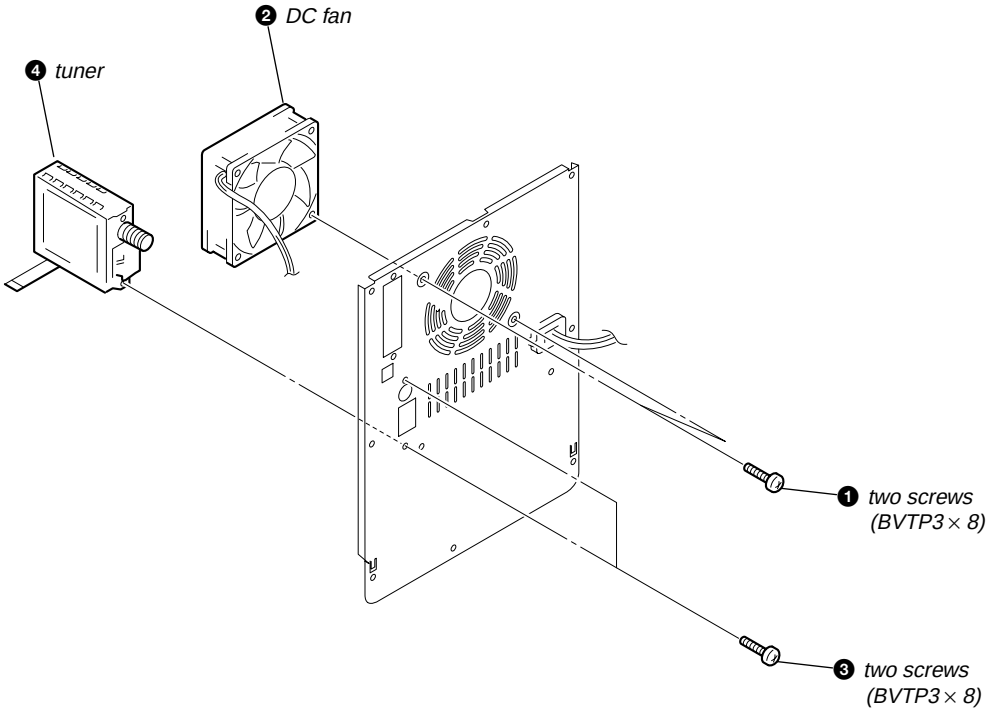
2-10. AMP BOARD


❹ thermistor board
❸ Remove soldering from the two points.
❺ wire (flat type) 11p (CN601)
❶ connector (CN991)
❷ screw (BVTP3 × 8)
❼ heat sink
❽ AMP board
❻ Remove soldering from the 15 points.

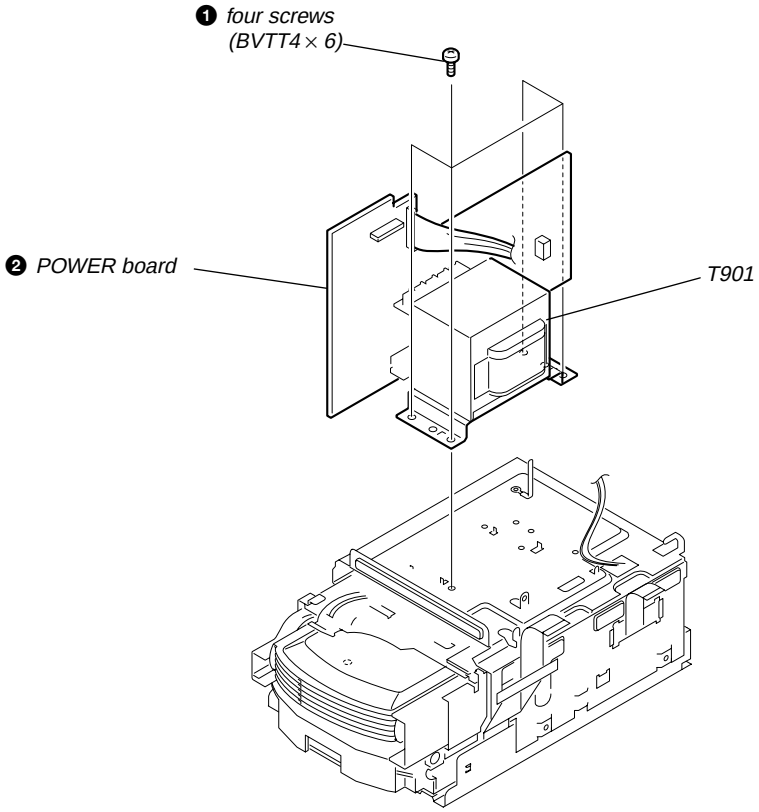
2-11. REAR PANEL SECTION



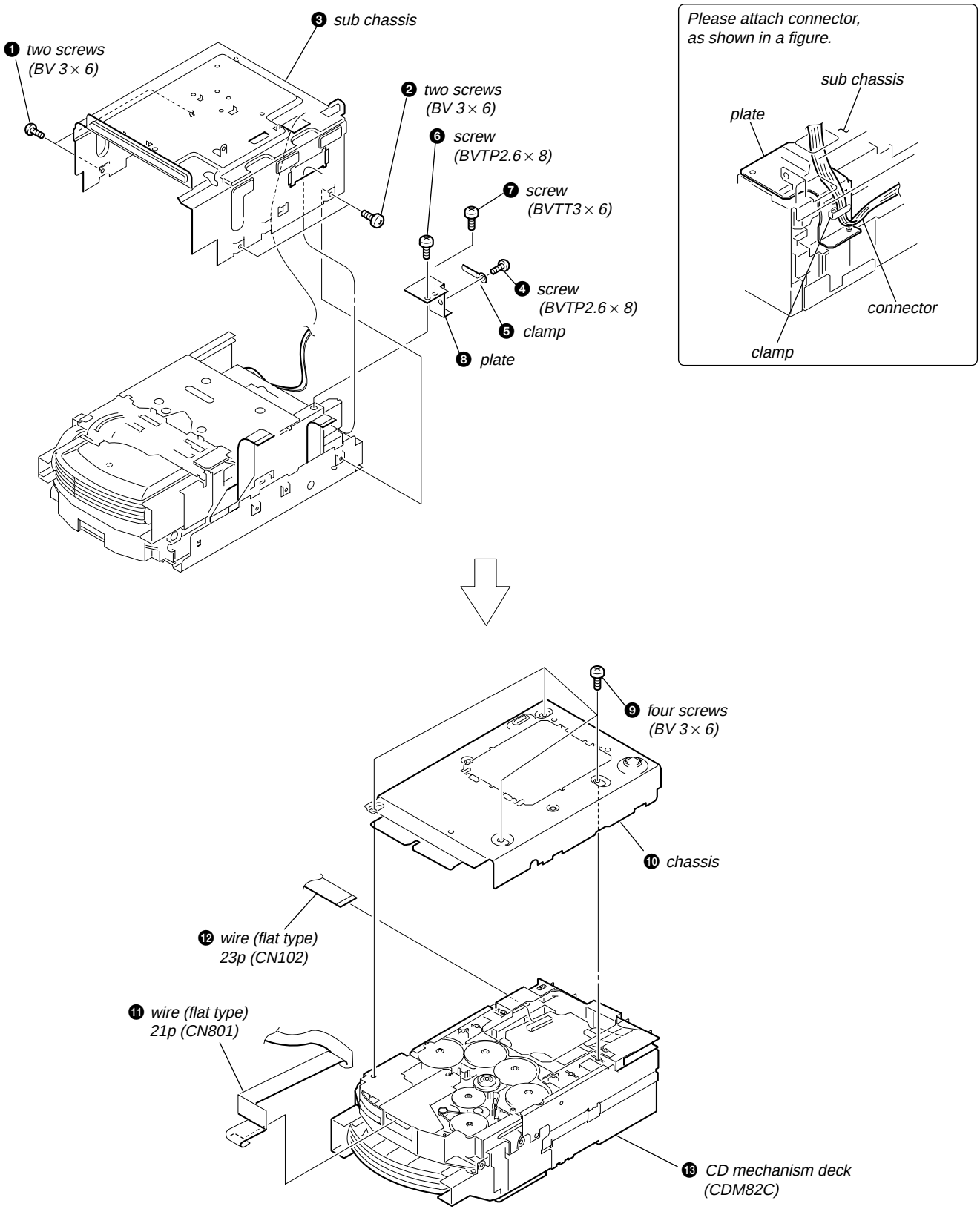
2-12. TUNER, DC FAN



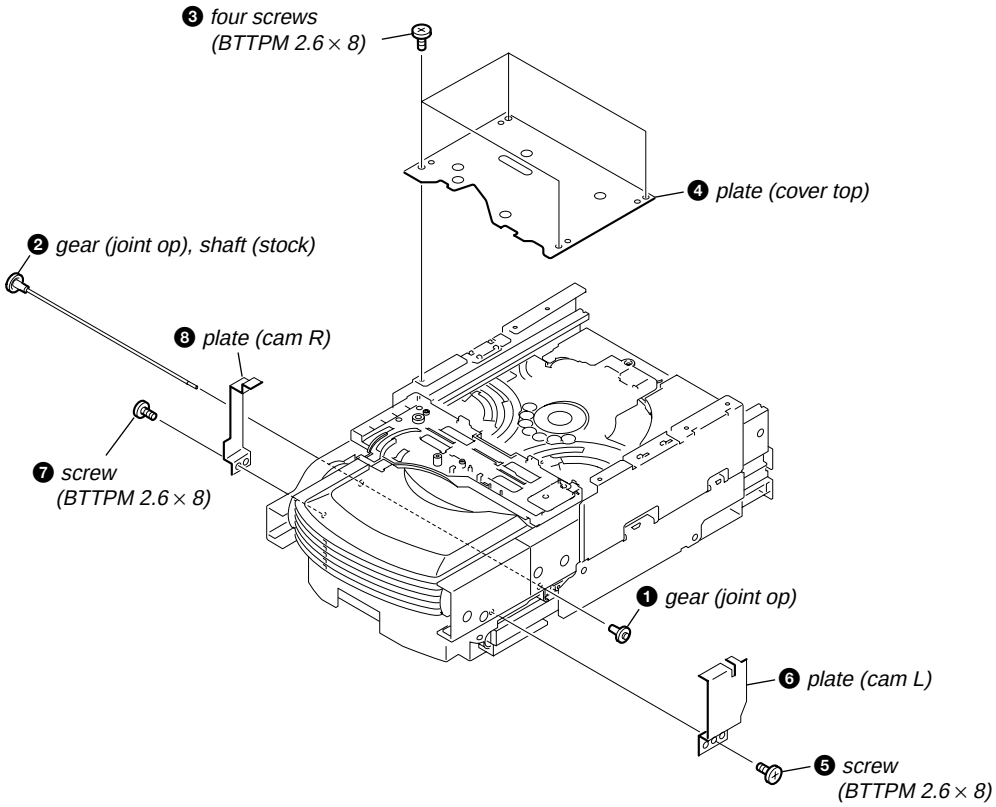
2-13. POWER BOARD



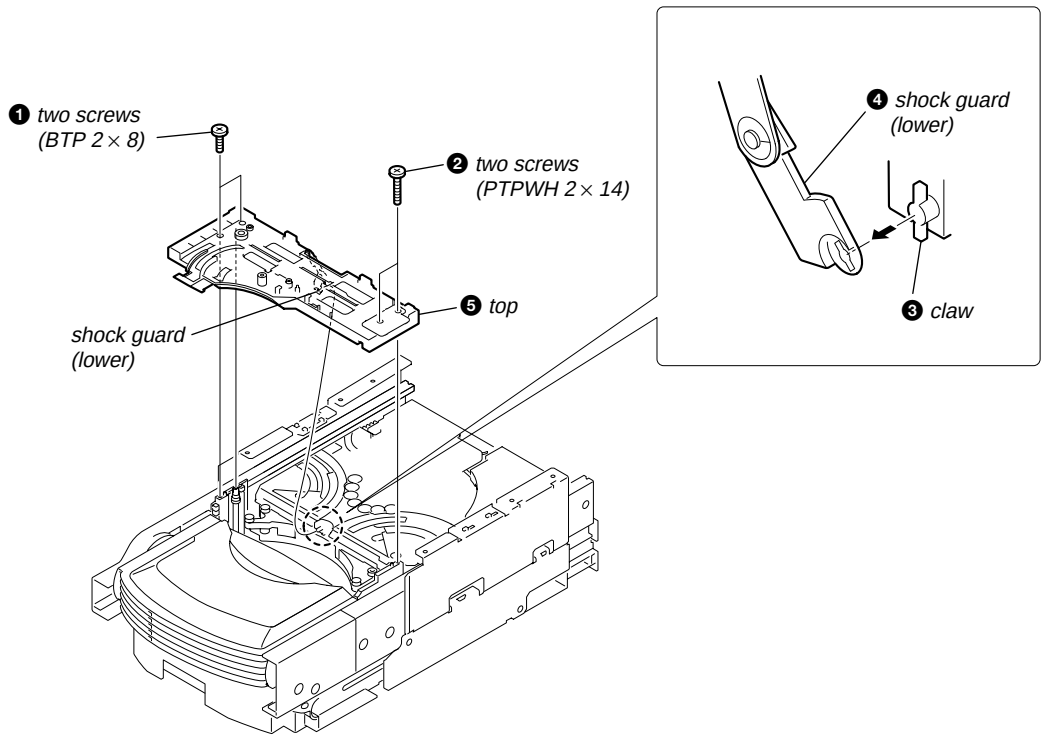
2-14. CD MECHANISM DECK (CDM82C)



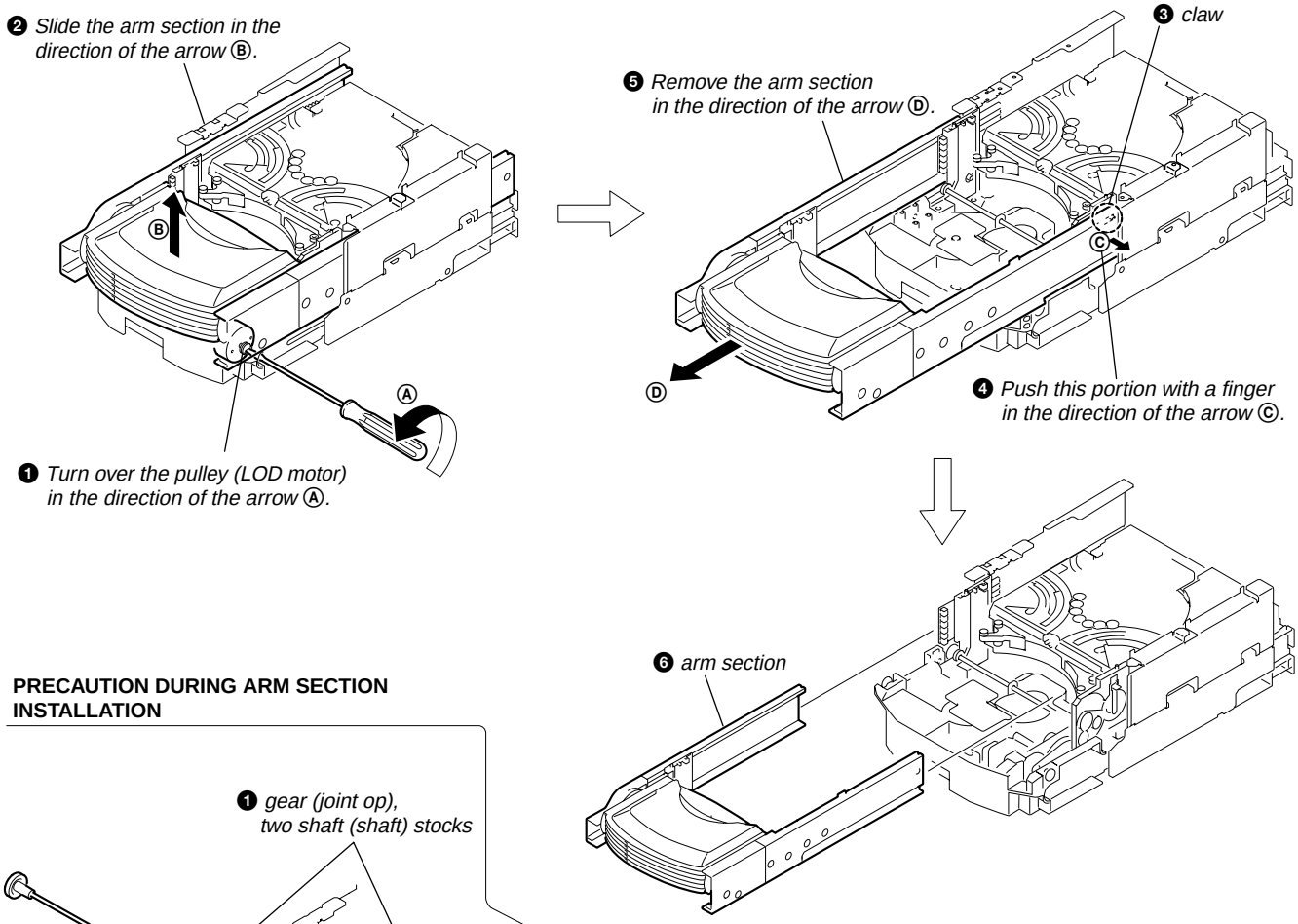
2-15. PLATE (COVER TOP)



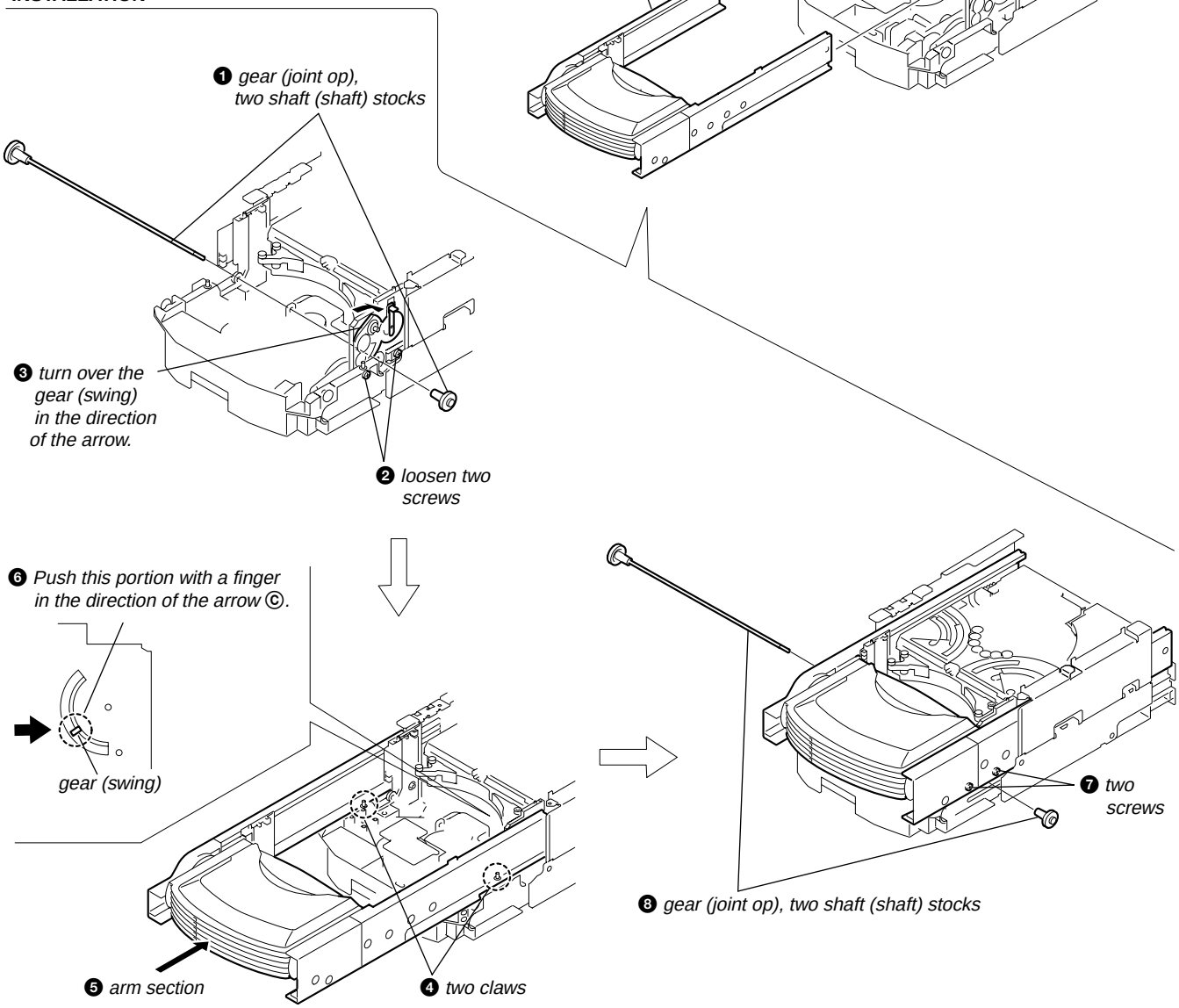
2-16. TOP SECTION



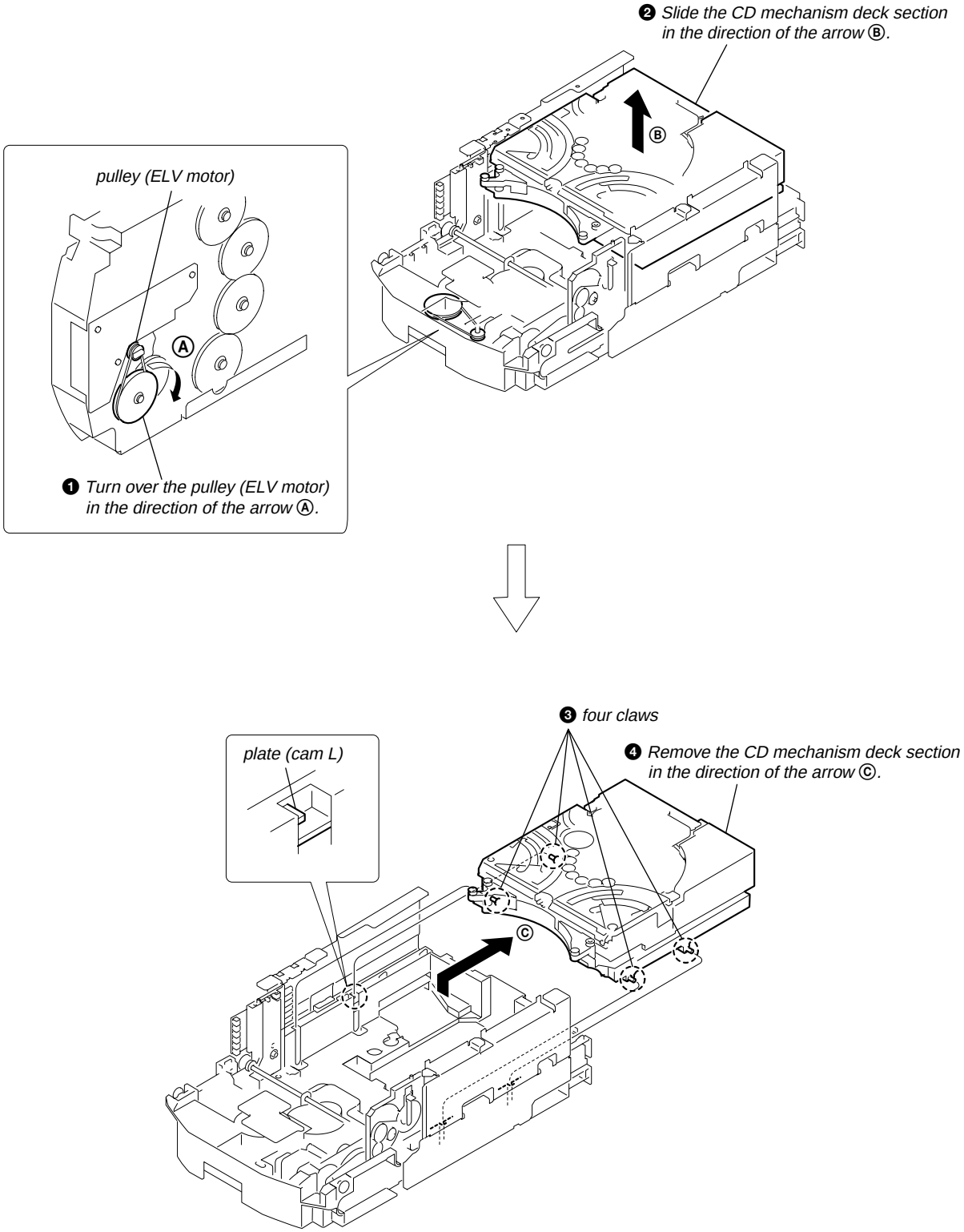
2-17. ARM SECTION


❷ Slide the arm section in the direction of the arrow Ⓑ.
❸ claw
❺ Remove the arm section in the direction of the arrow Ⓓ.
Ⓑ
Ⓐ
Ⓒ
Ⓓ
❶ Turn over the pulley (LOD motor) in the direction of the arrow Ⓐ.
❹ Push this portion with a finger in the direction of the arrow Ⓒ.
❻ arm section

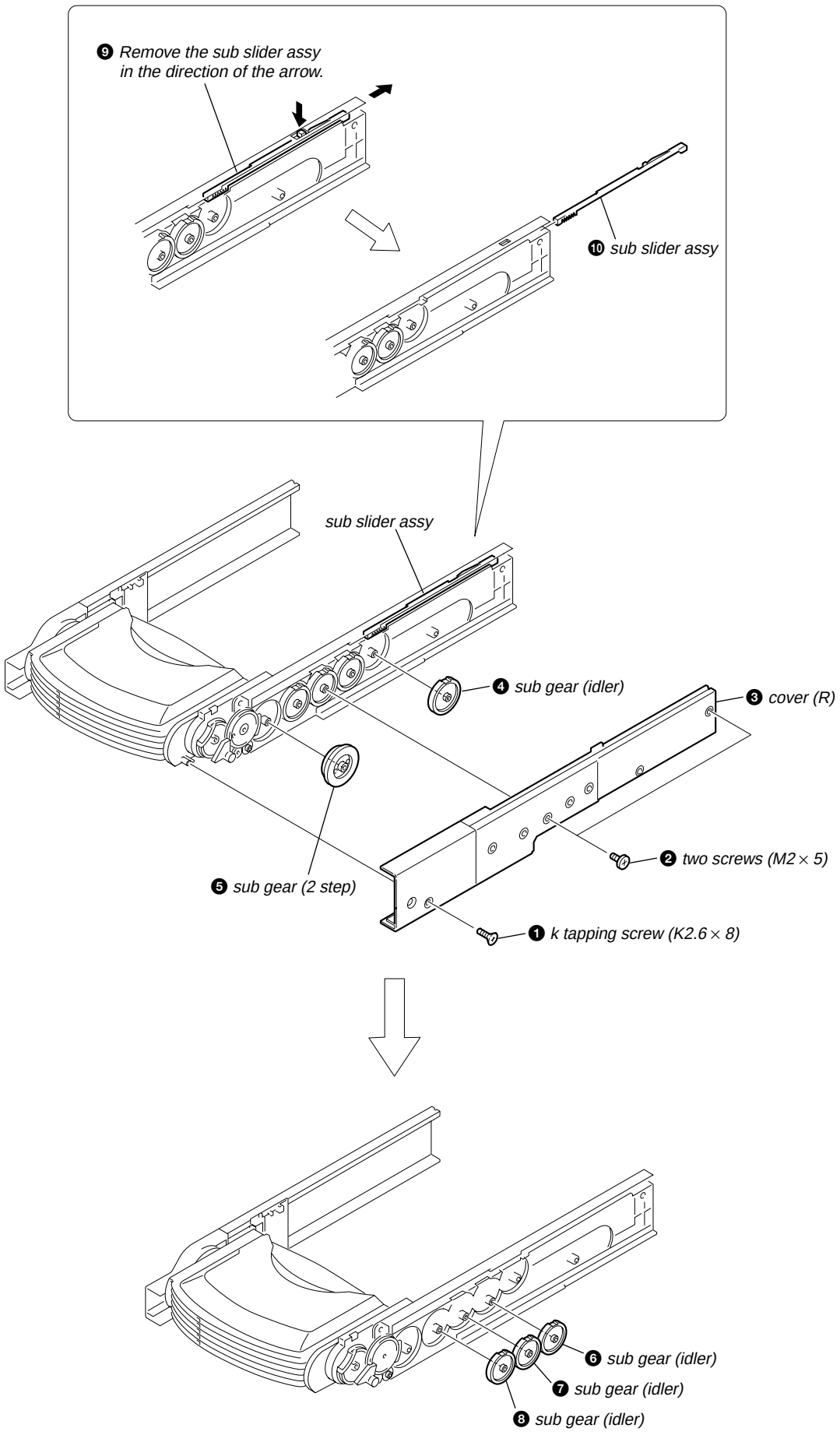
PRECAUTION DURING ARM SECTION INSTALLATION


❶ gear (joint op), two shaft (shaft) stocks
❸ turn over the gear (swing) in the direction of the arrow.
❷ loosen two screws
❻ Push this portion with a finger in the direction of the arrow Ⓒ.
gear (swing)
❺ arm section
❹ two claws
❼ two screws
❽ gear (joint op), two shaft (shaft) stocks

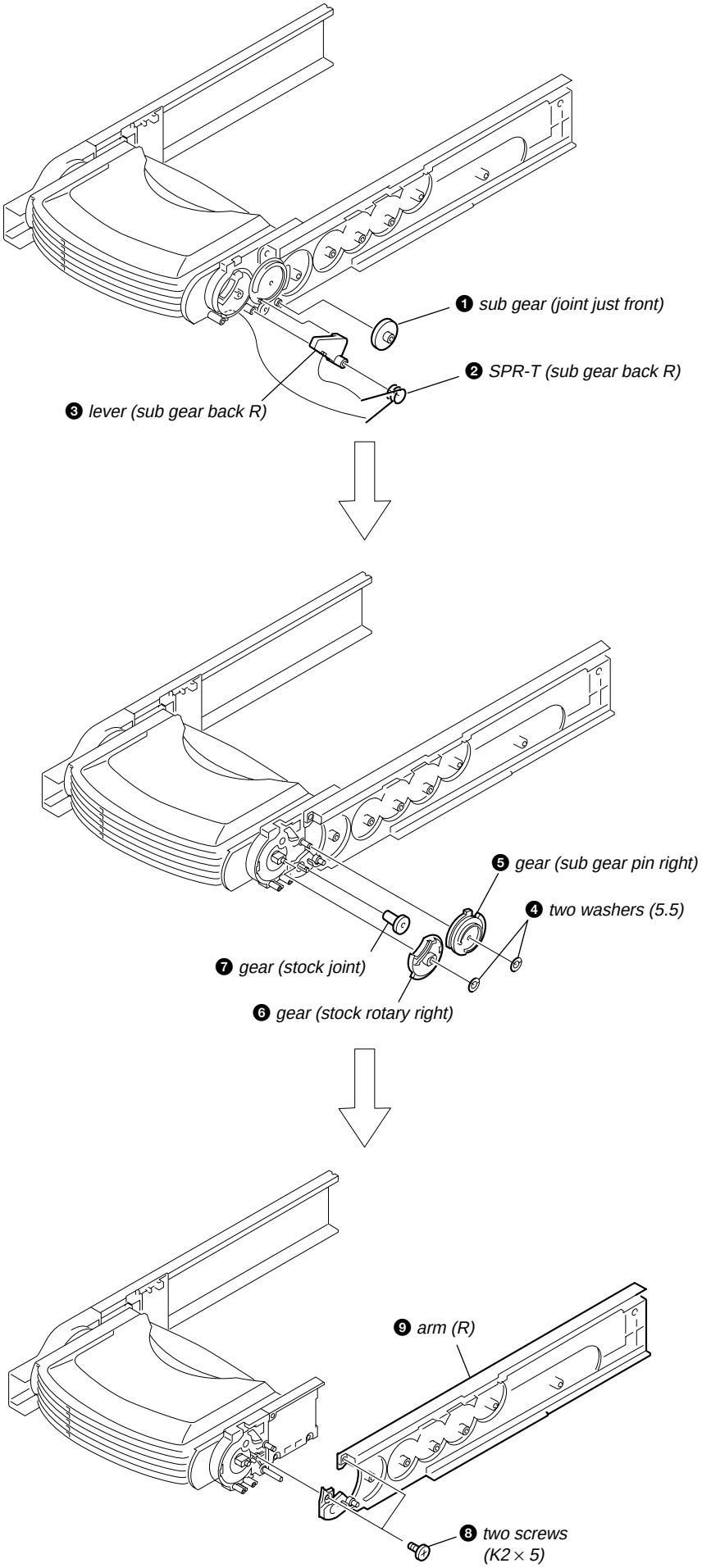
2-18. CD MECHANISM DECK SECTION


❷ Slide the CD mechanism deck section in the direction of the arrow Ⓑ.
Ⓑ
pulley (ELV motor)
Ⓐ
❶ Turn over the pulley (ELV motor) in the direction of the arrow Ⓐ.
❸ four claws
❹ Remove the CD mechanism deck section in the direction of the arrow Ⓒ.
plate (cam L)
Ⓒ

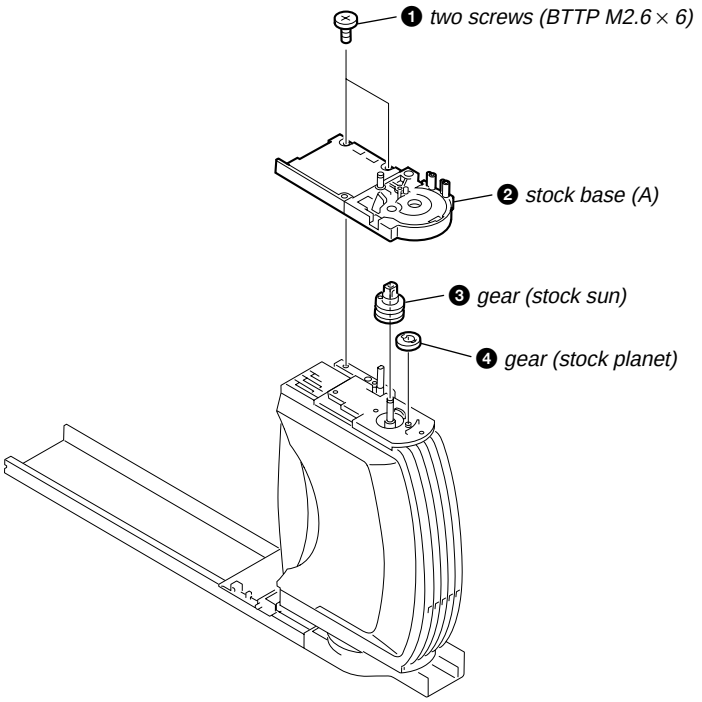
2-19. SUB GEAR (2 STEP), SUB SLIDER ASSY


❾ Remove the sub slider assy in the direction of the arrow.
❿ sub slider assy
sub slider assy
❹ sub gear (idler)
❸ cover (R)
❷ two screws (M2 × 5)
❺ sub gear (2 step)
❶ k tapping screw (K2.6 × 8)
❻ sub gear (idler)
❼ sub gear (idler)
❽ sub gear (idler)

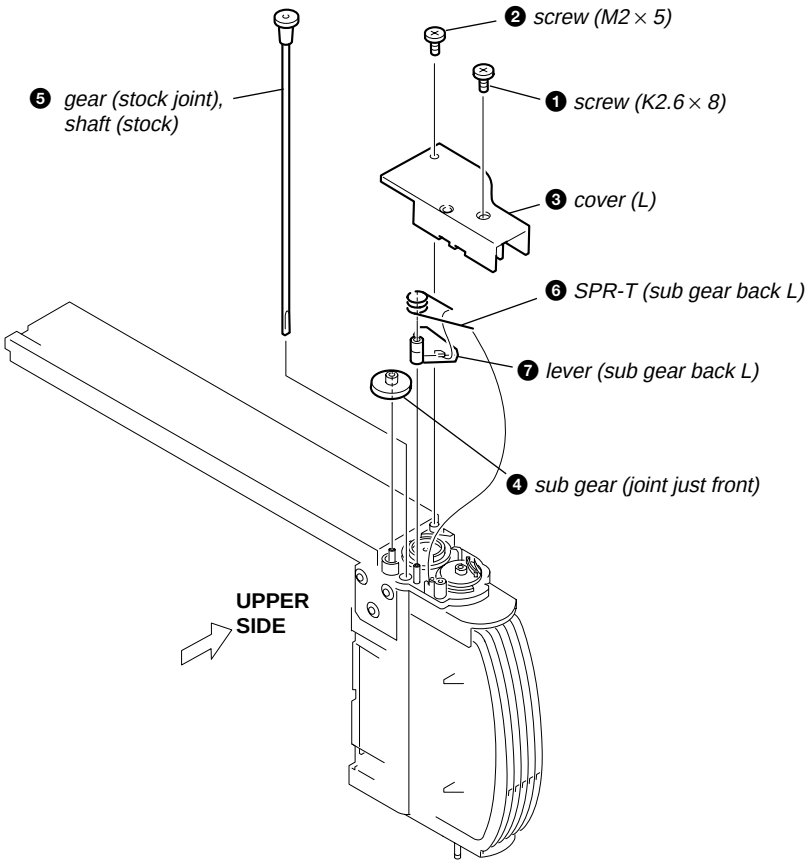
2-20. ARM (R)


❶ sub gear (joint just front)
❷ SPR-T (sub gear back R)
❸ lever (sub gear back R)
❺ gear (sub gear pin right)
❹ two washers (5.5)
❼ gear (stock joint)
❻ gear (stock rotary right)
❾ arm (R)
❽ two screws
(K2 × 5)

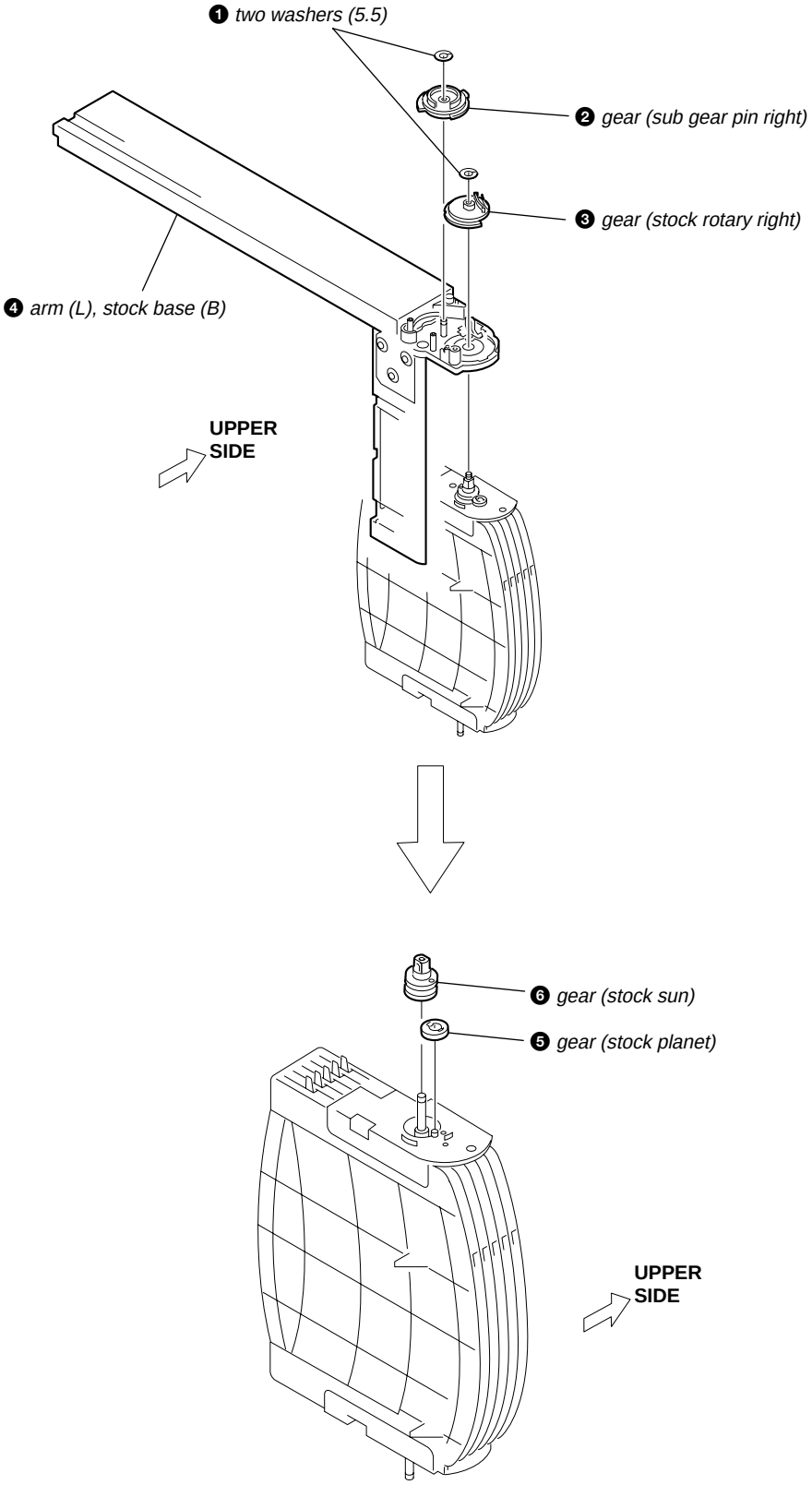
2-21. GEAR (STOCK PLANET) (RIGHT)



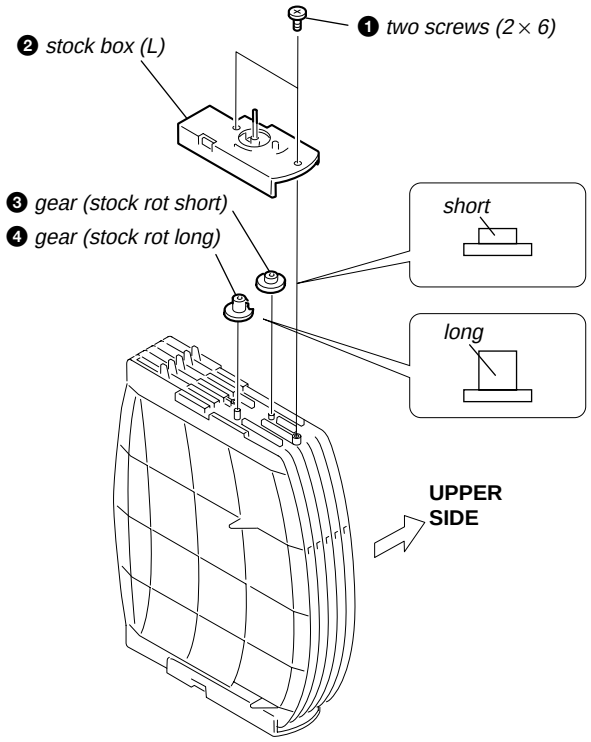
2-22. LEVER (SUB GEAR BACK L)


❷ screw (M2 × 5)
❶ screw (K2.6 × 8)
❺ gear (stock joint), shaft (stock)
❸ cover (L)
❻ SPR-T (sub gear back L)
❼ lever (sub gear back L)
❹ sub gear (joint just front)
UPPER SIDE

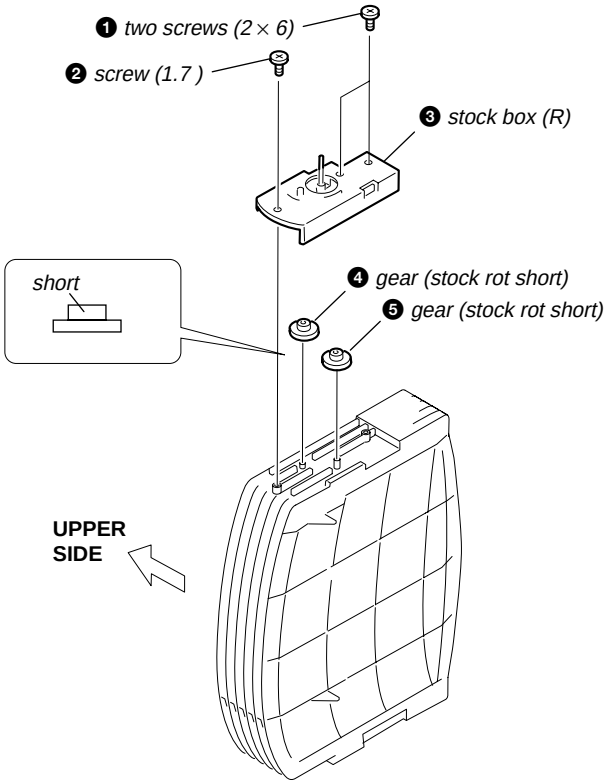
2-23. ARM (L)


❶ two washers (5.5)
❷ gear (sub gear pin right)
❸ gear (stock rotary right)
❹ arm (L), stock base (B)
UPPER SIDE
❻ gear (stock sun)
❺ gear (stock planet)
UPPER SIDE

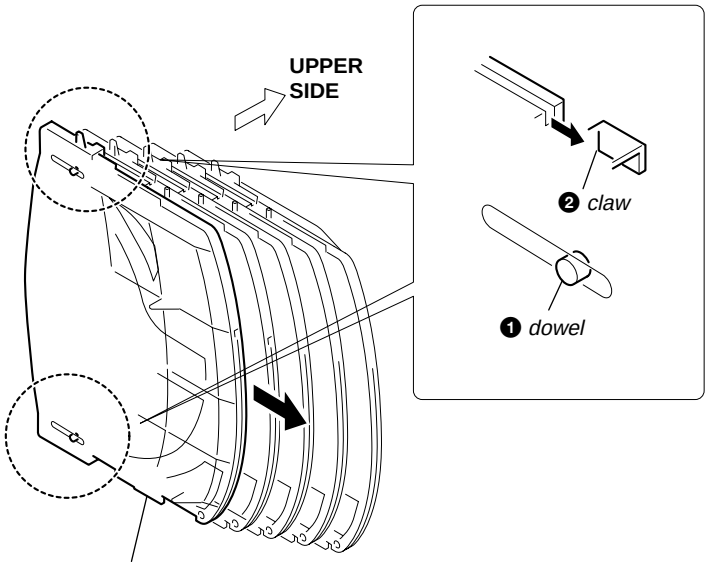
2-24. GEAR (STOCK ROT LONG) (LEFT)



2-25. GEAR (STOCK ROT SHORT) (RIGHT)

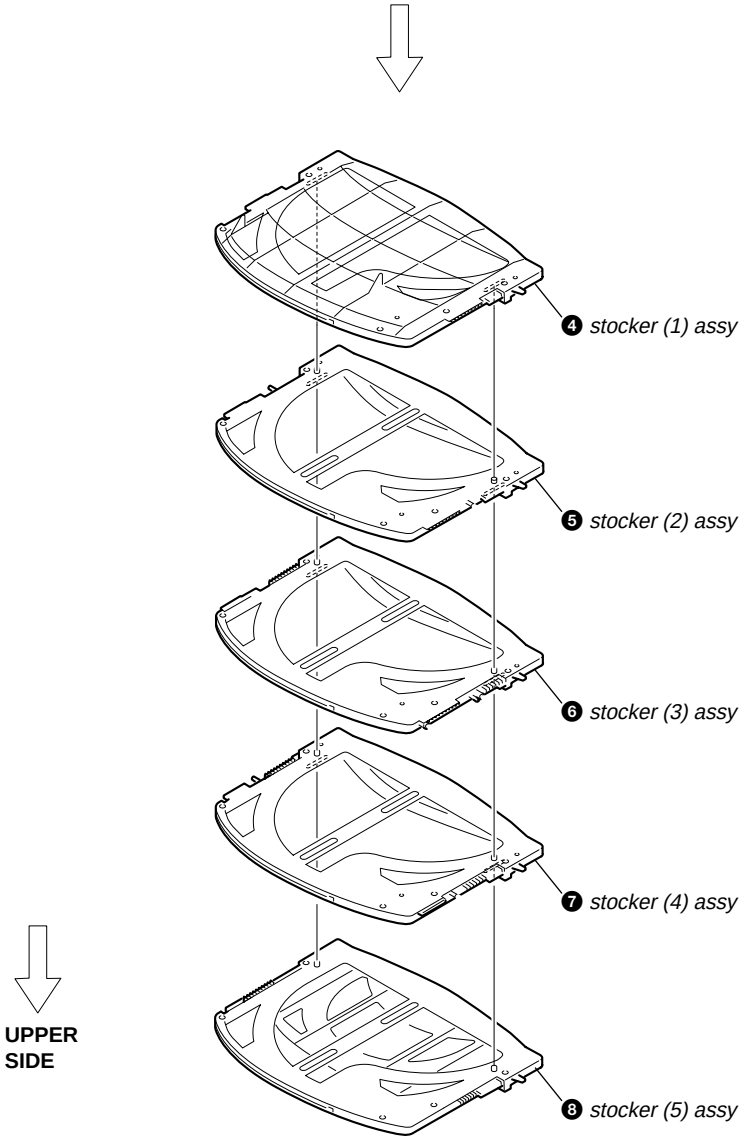


2-26. STOCKER (1) ASSY TO STOCKER (5) ASSY

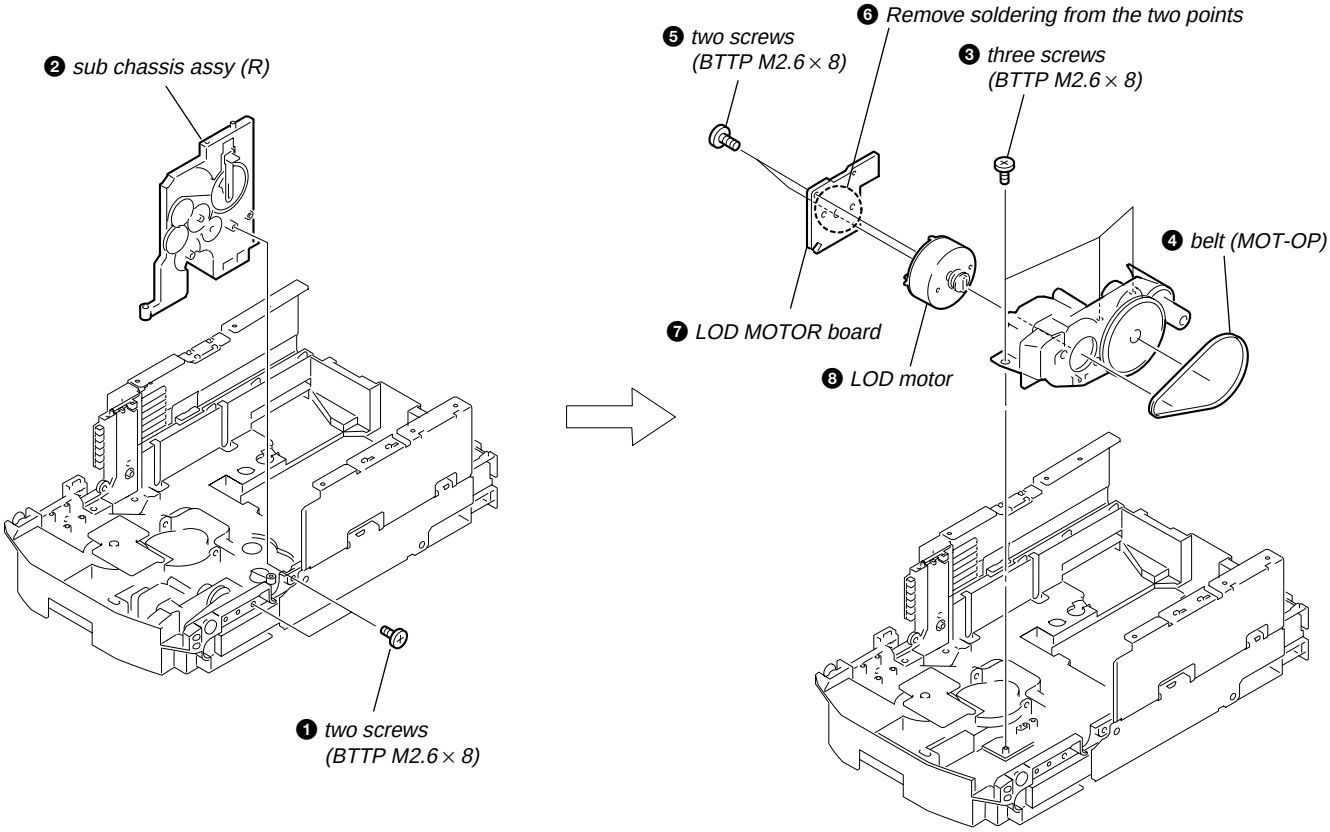


❸ *Remove the stocker (1) assy in the direction of the arrow.*

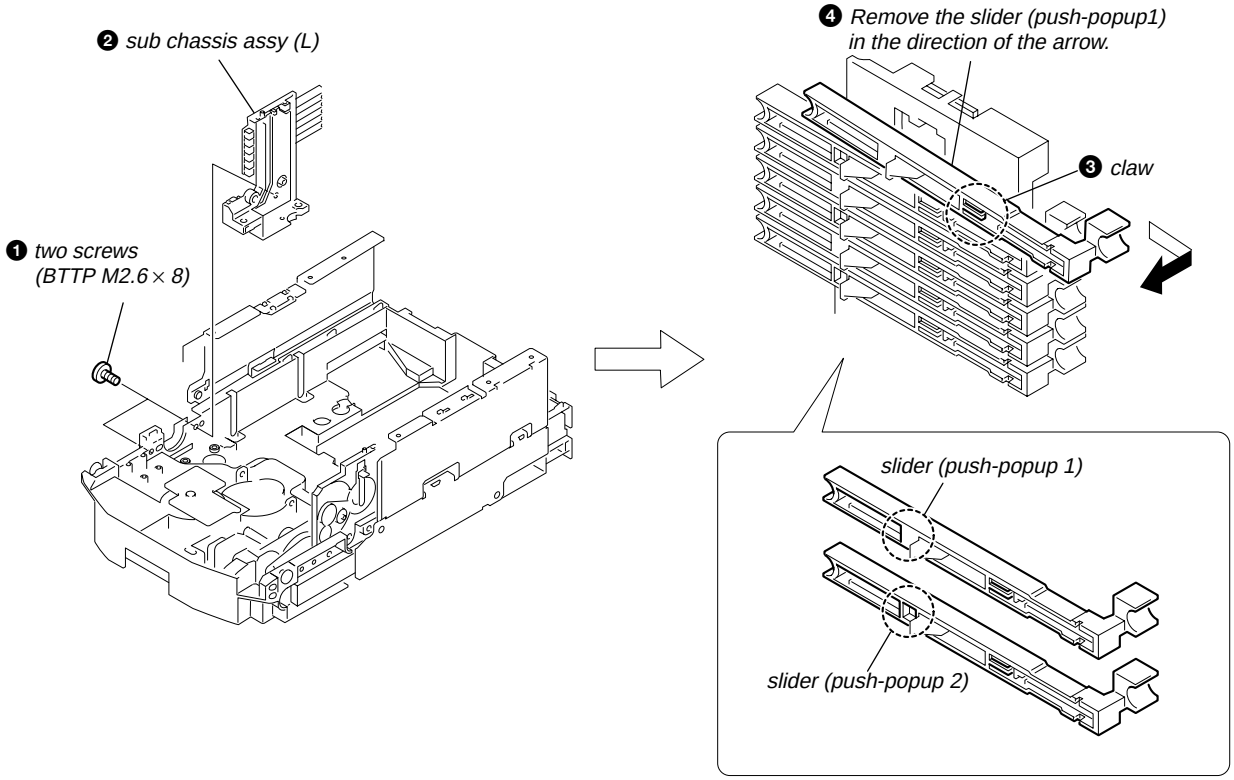
Repeat the steps ❶ *to* ❶*, when removing the part (2), (3), (4) and (5) of the stocker assy.*



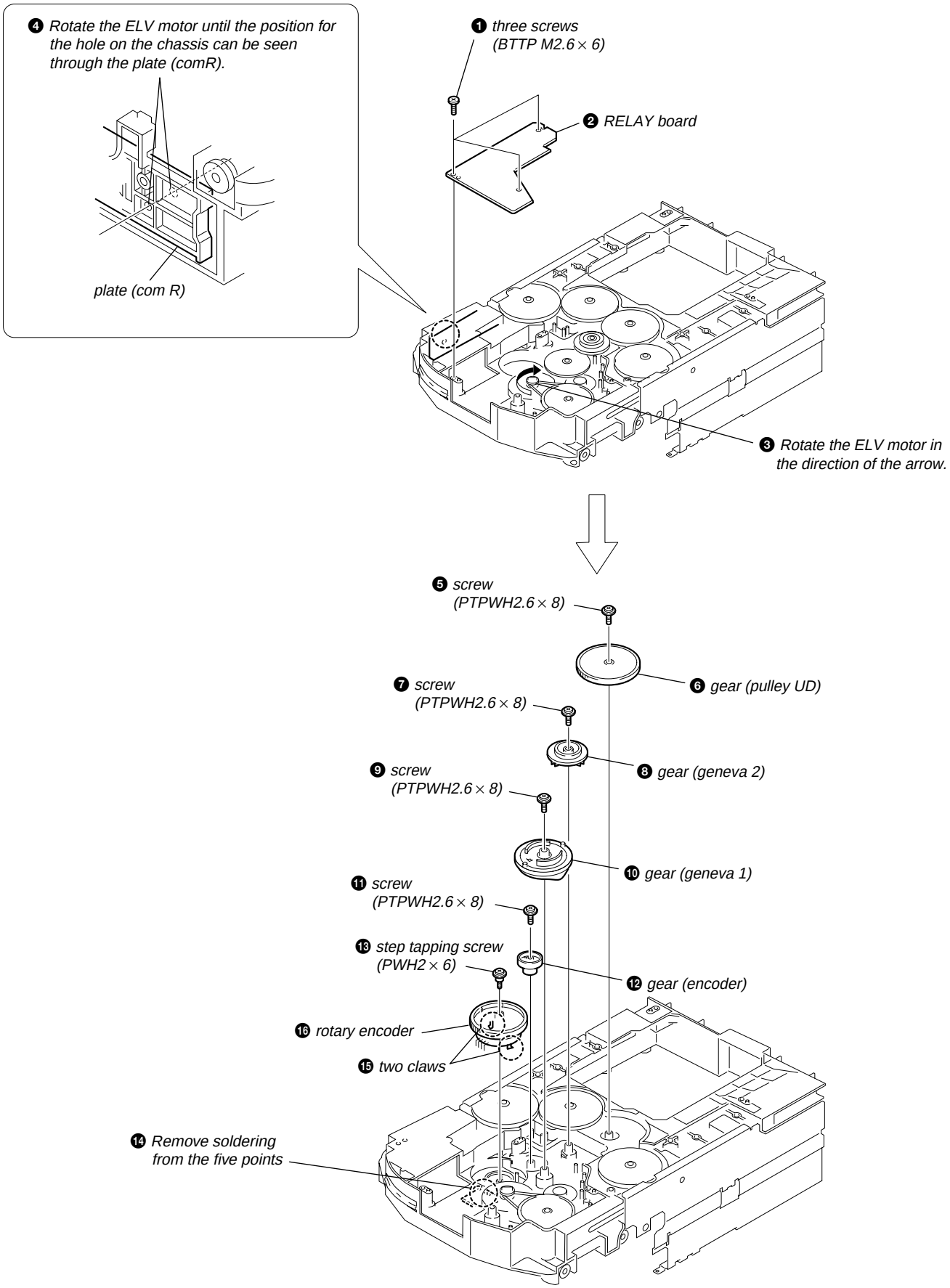
2-27. LOD MOTOR



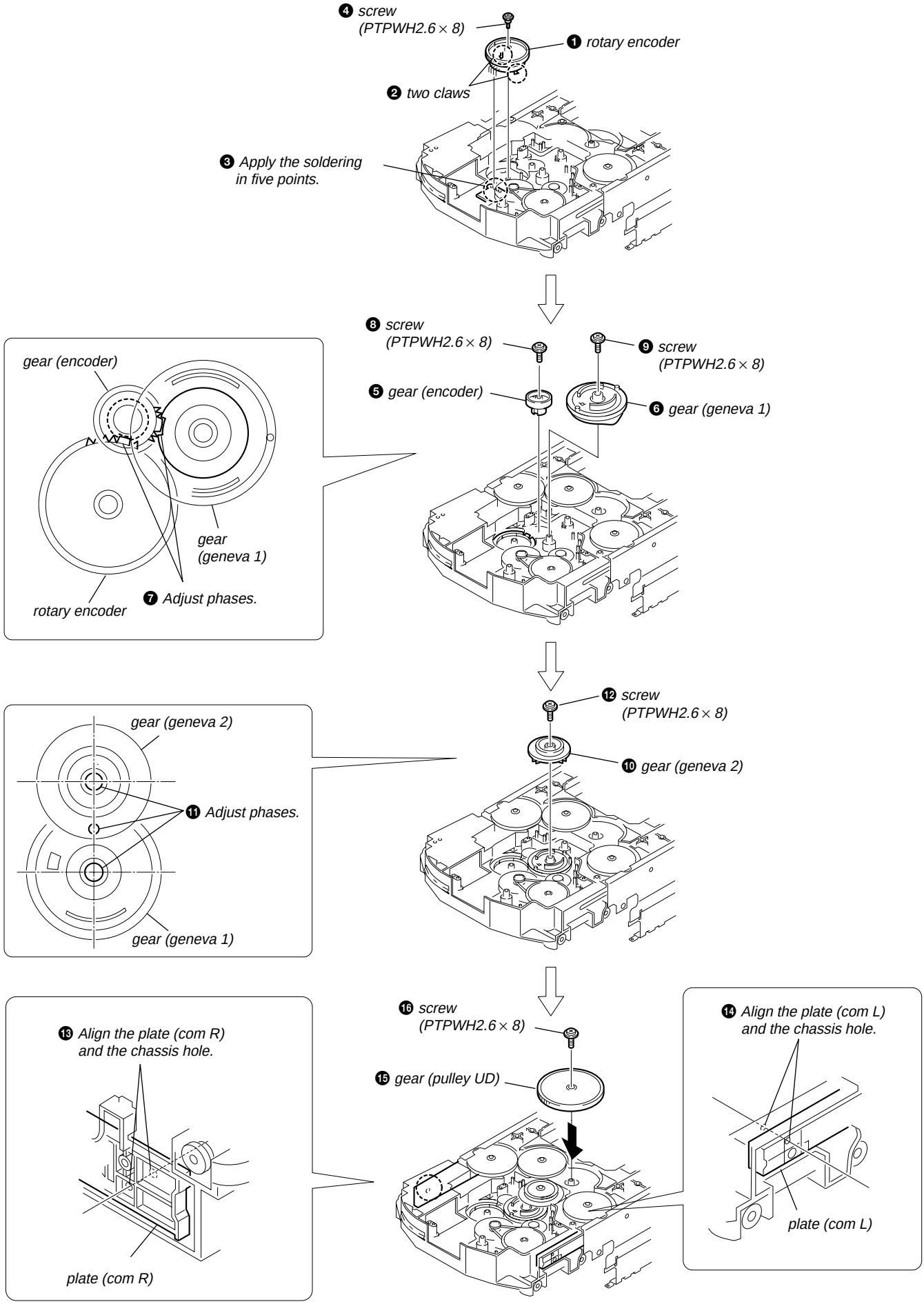
2-28. SLIDER (PUSH-POPUP)



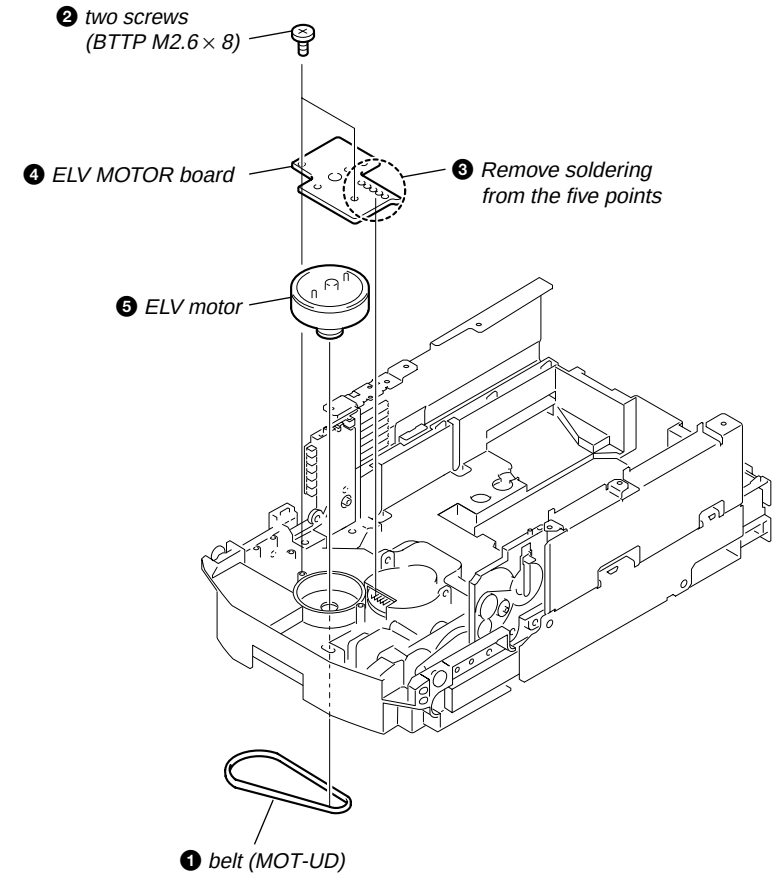
2-29. ROTARY ENCODER

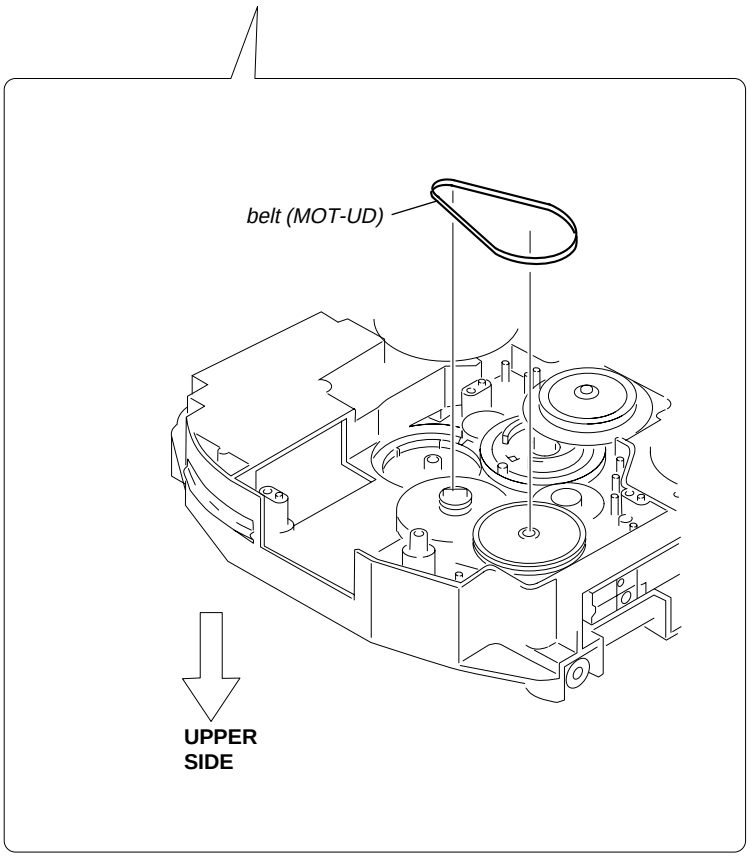

❹ Rotate the ELV motor until the position for the hole on the chassis can be seen through the plate (comR).
plate (com R)
❶ three screws (BTTP M2.6 × 6)
❷ RELAY board
❸ Rotate the ELV motor in the direction of the arrow.
❺ screw (PTPWH2.6 × 8)
❻ gear (pulley UD)
❼ screw (PTPWH2.6 × 8)
❽ gear (geneva 2)
❾ screw (PTPWH2.6 × 8)
❿ gear (geneva 1)
⓫ screw (PTPWH2.6 × 8)
⓬ gear (encoder)
⓭ step tapping screw (PWH2 × 6)
⓮ Remove soldering from the five points
⓯ two claws
⓰ rotary encoder

2-30. ASSEMBLING OF THE ROTARY ENCODER

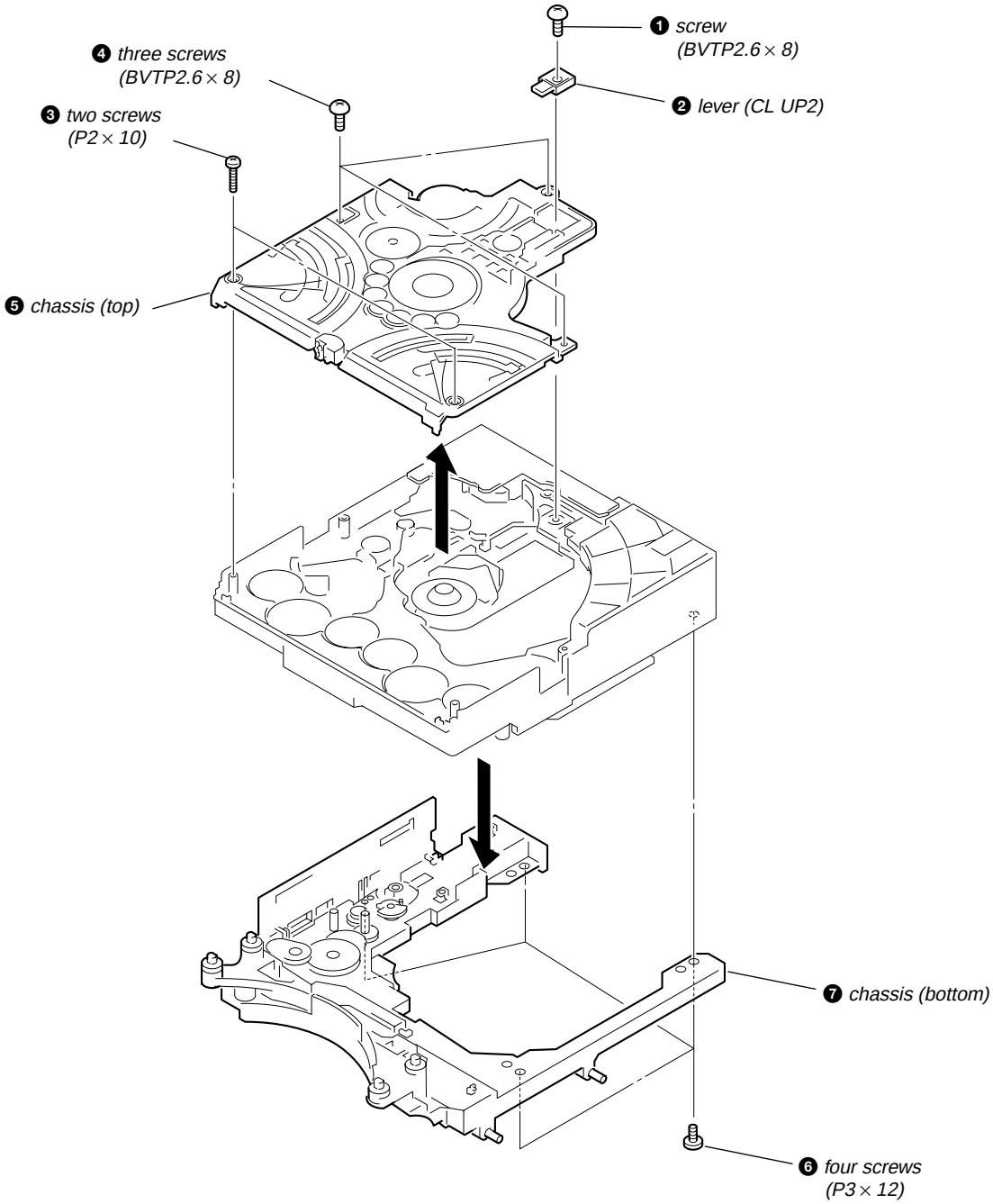

❹ screw (PTPWH2.6 × 8)
❶ rotary encoder
❷ two claws
❸ Apply the soldering in five points.
❽ screw (PTPWH2.6 × 8)
❾ screw (PTPWH2.6 × 8)
❺ gear (encoder)
❻ gear (geneva 1)
gear (encoder)
gear (geneva 1)
rotary encoder
❼ Adjust phases.
❿ gear (geneva 2)
⓬ screw (PTPWH2.6 × 8)
gear (geneva 2)
⓫ Adjust phases.
gear (geneva 1)
⓰ screw (PTPWH2.6 × 8)
⓯ gear (pulley UD)
⓭ Align the plate (com R) and the chassis hole.
plate (com R)
⓮ Align the plate (com L) and the chassis hole.
plate (com L)

2-31. ELV MOTOR

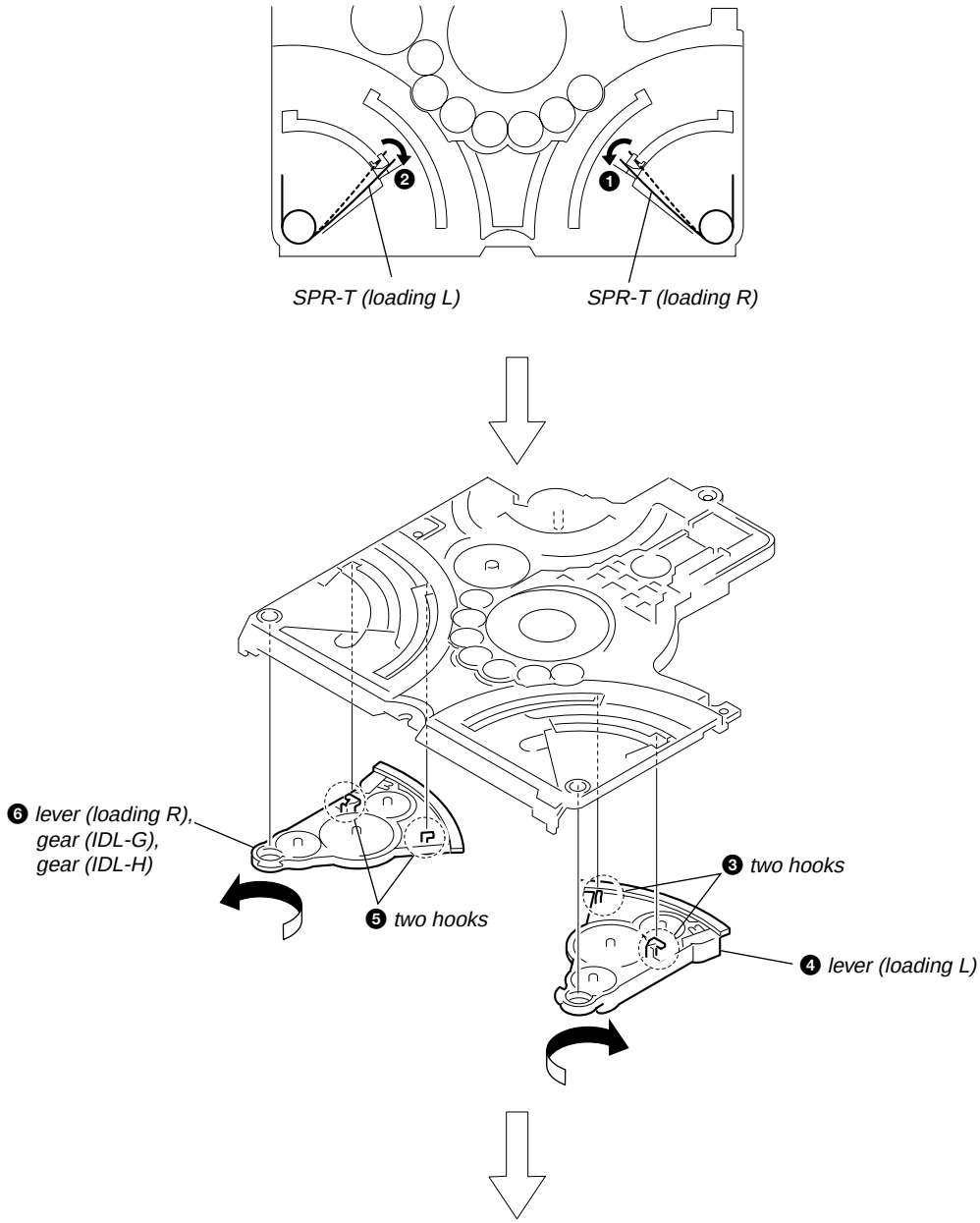




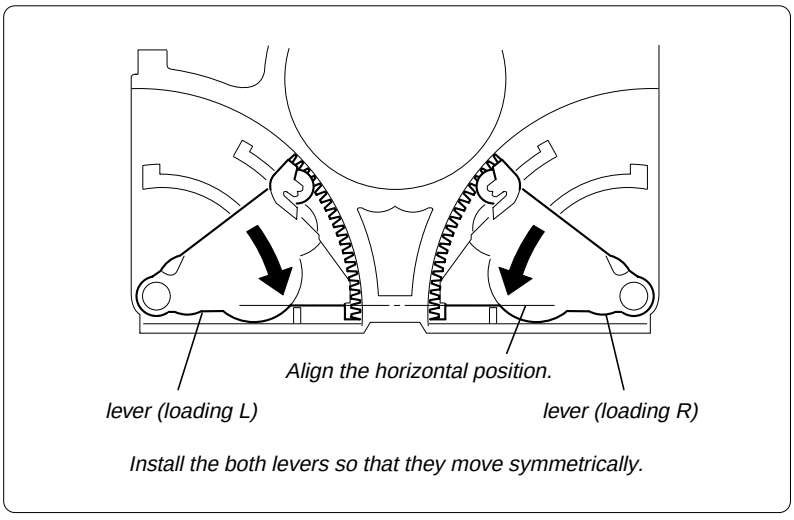
2-32. CHASSIS (TOP), CHASSIS (BOTTOM)



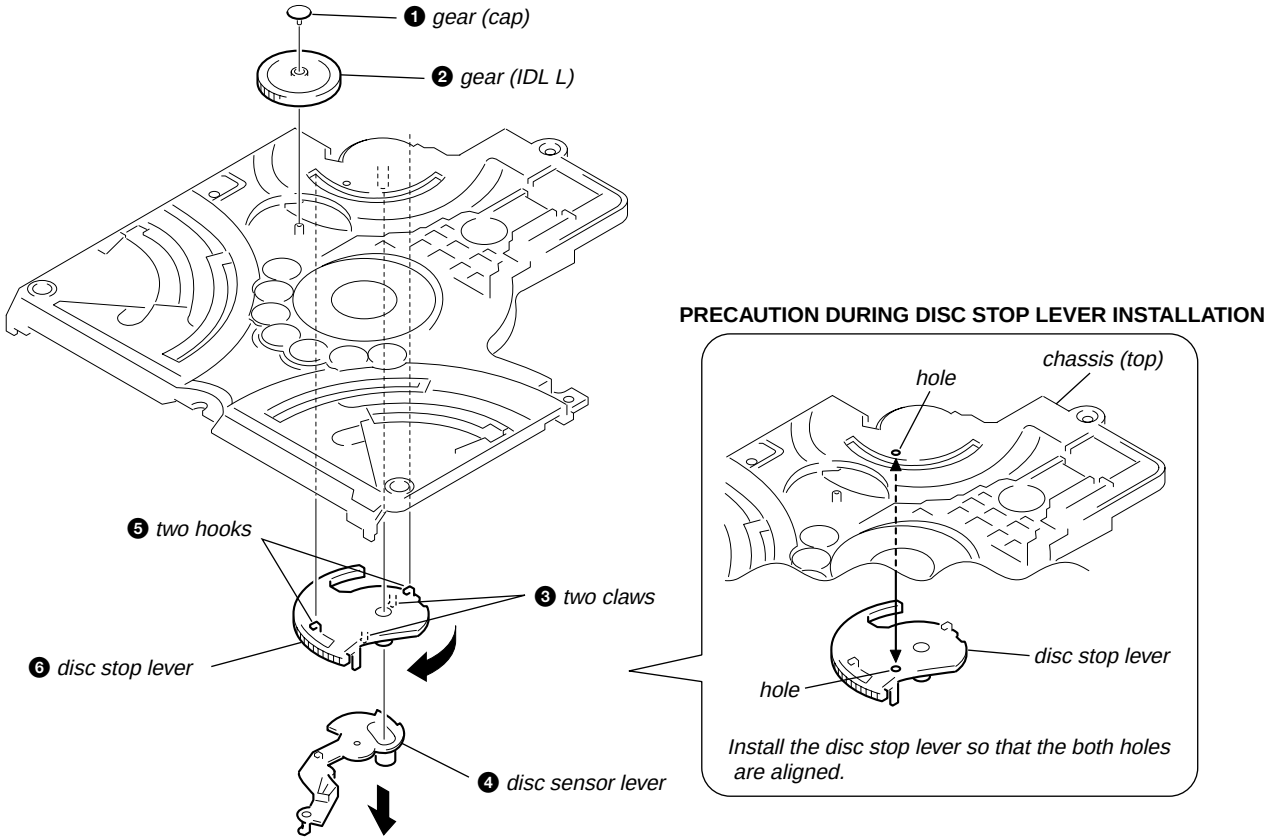
2-33. LEVER (LOADING R, LOADING L)



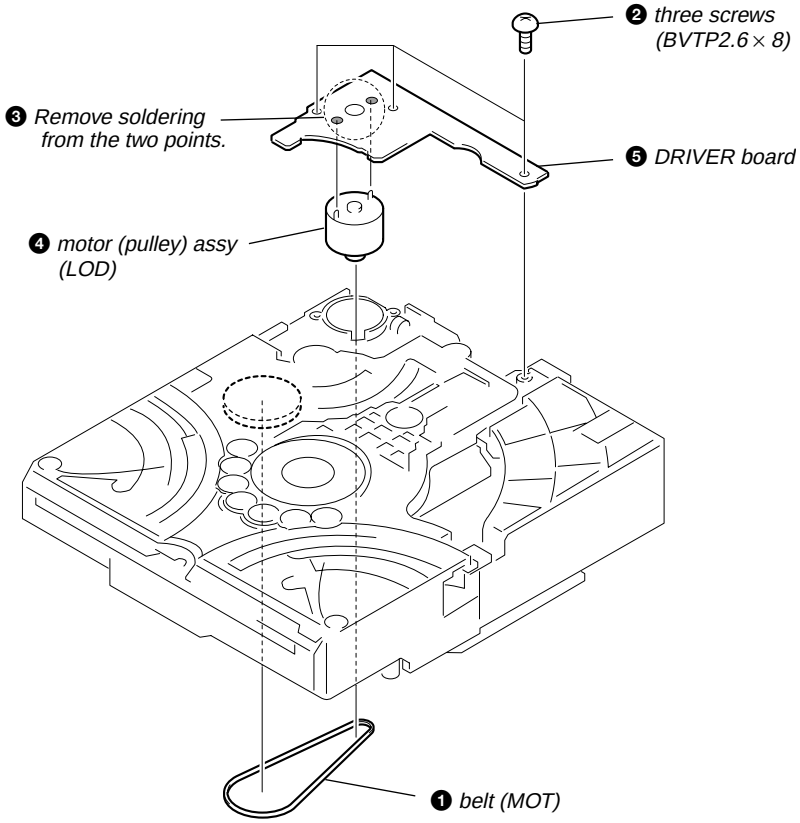
PRECAUTION DURING LEVER (LOADING R/L) INSTALLATION



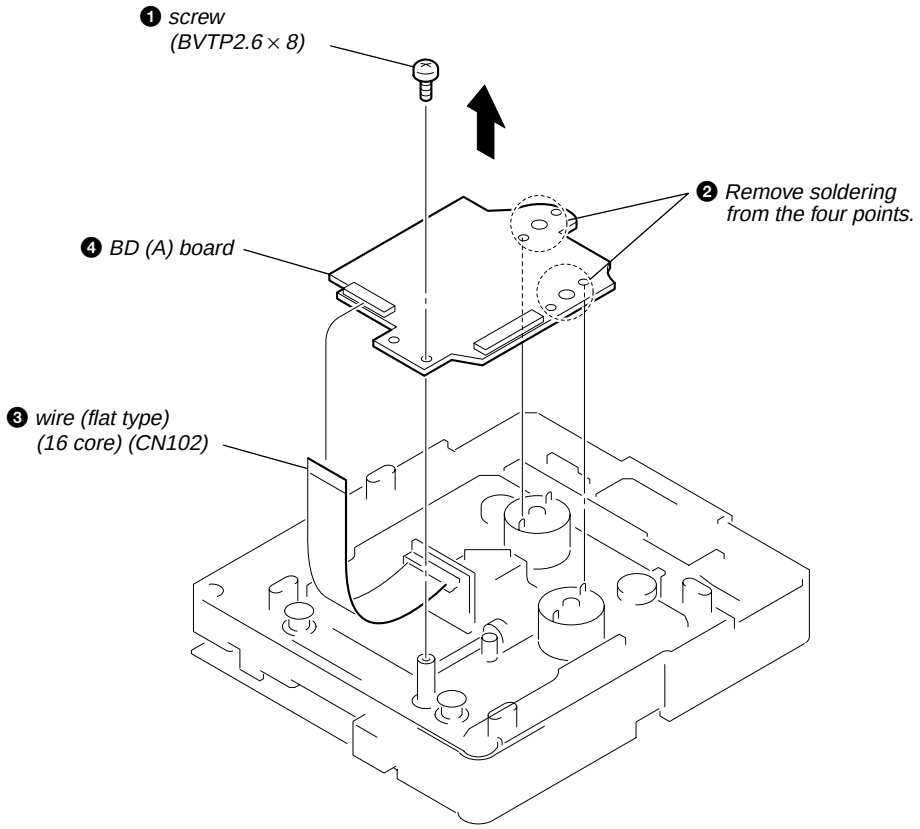
2-34. DISC STOP LEVER



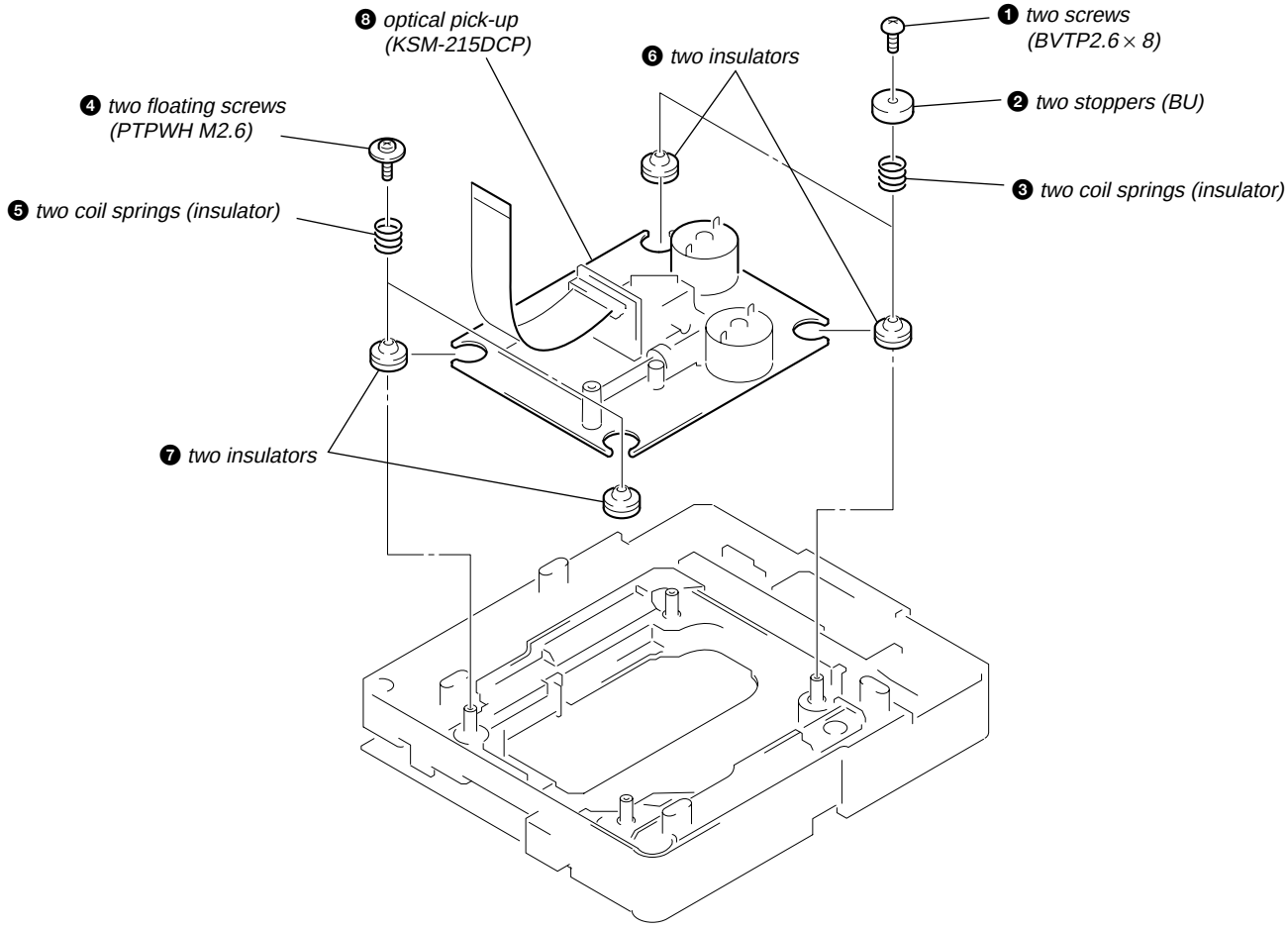
2-35. DRIVER BOARD



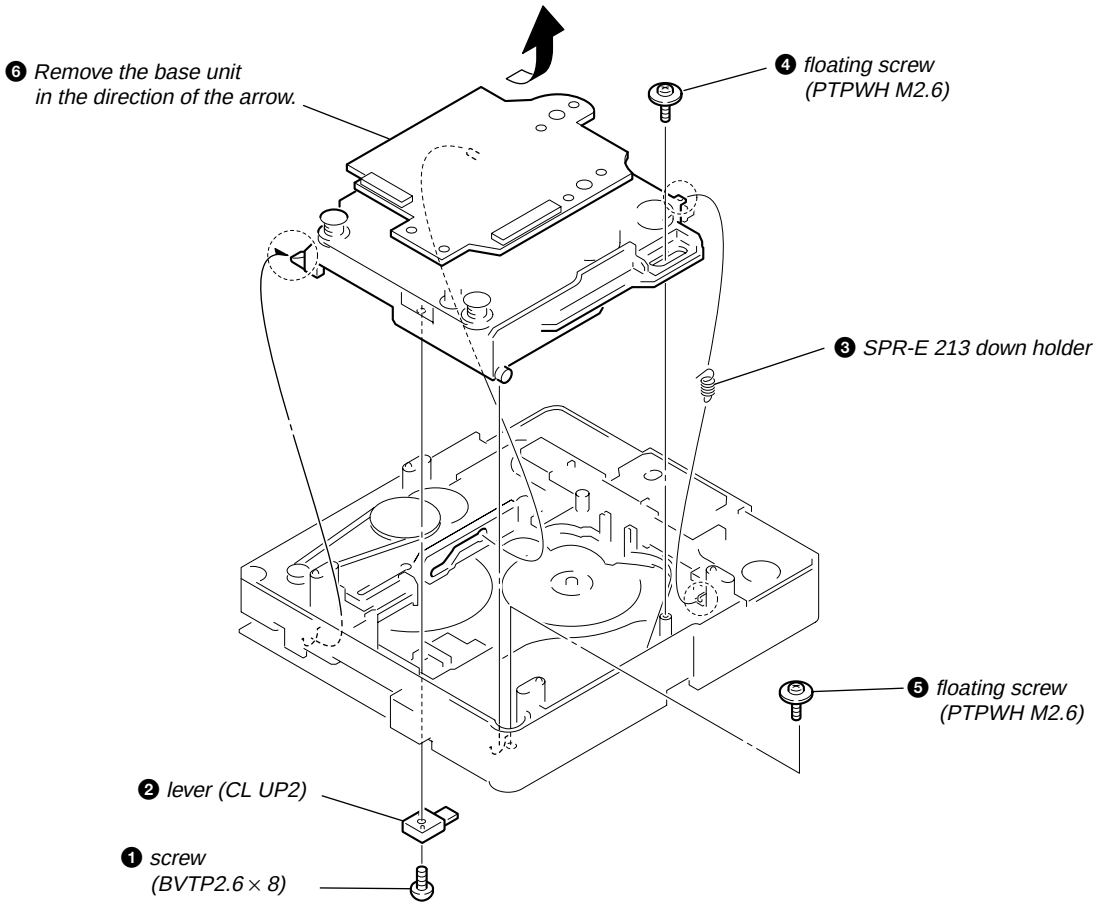
2-36. BD BOARD (A)



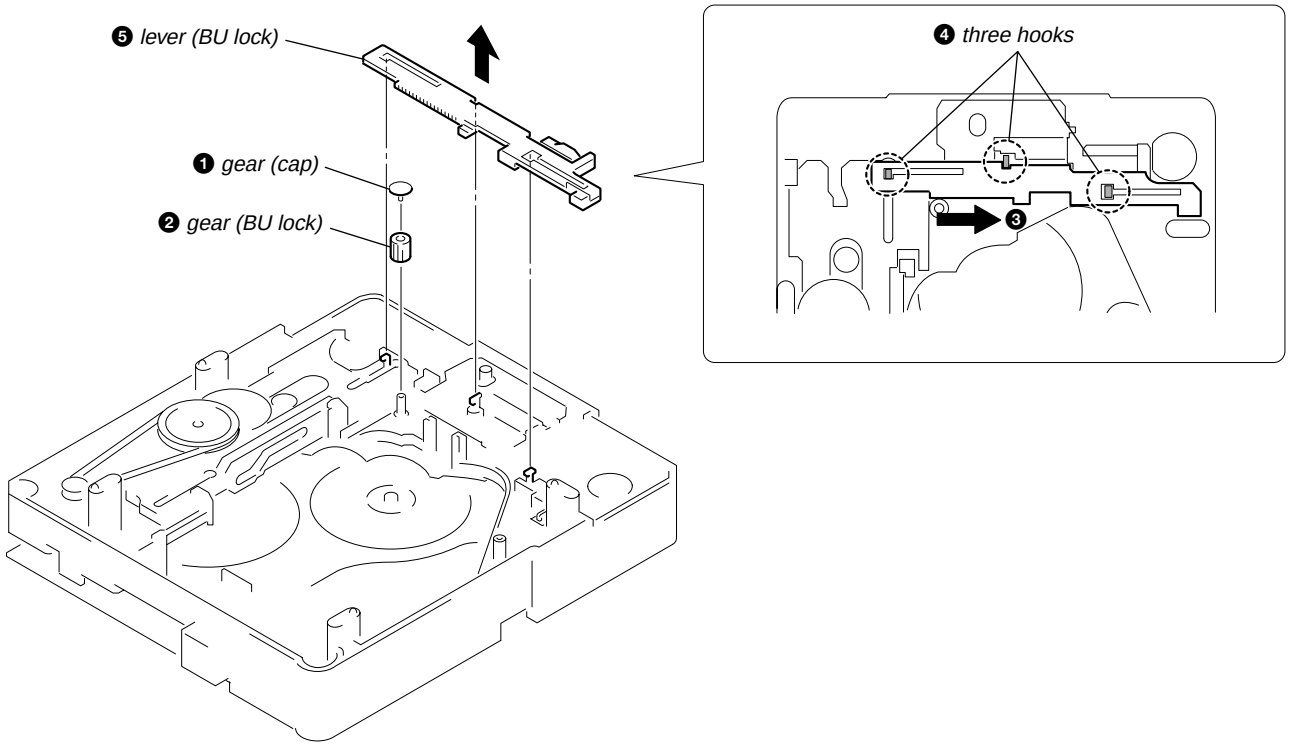
2-37. OPTICAL PICK-UP (KSM-215DCP)



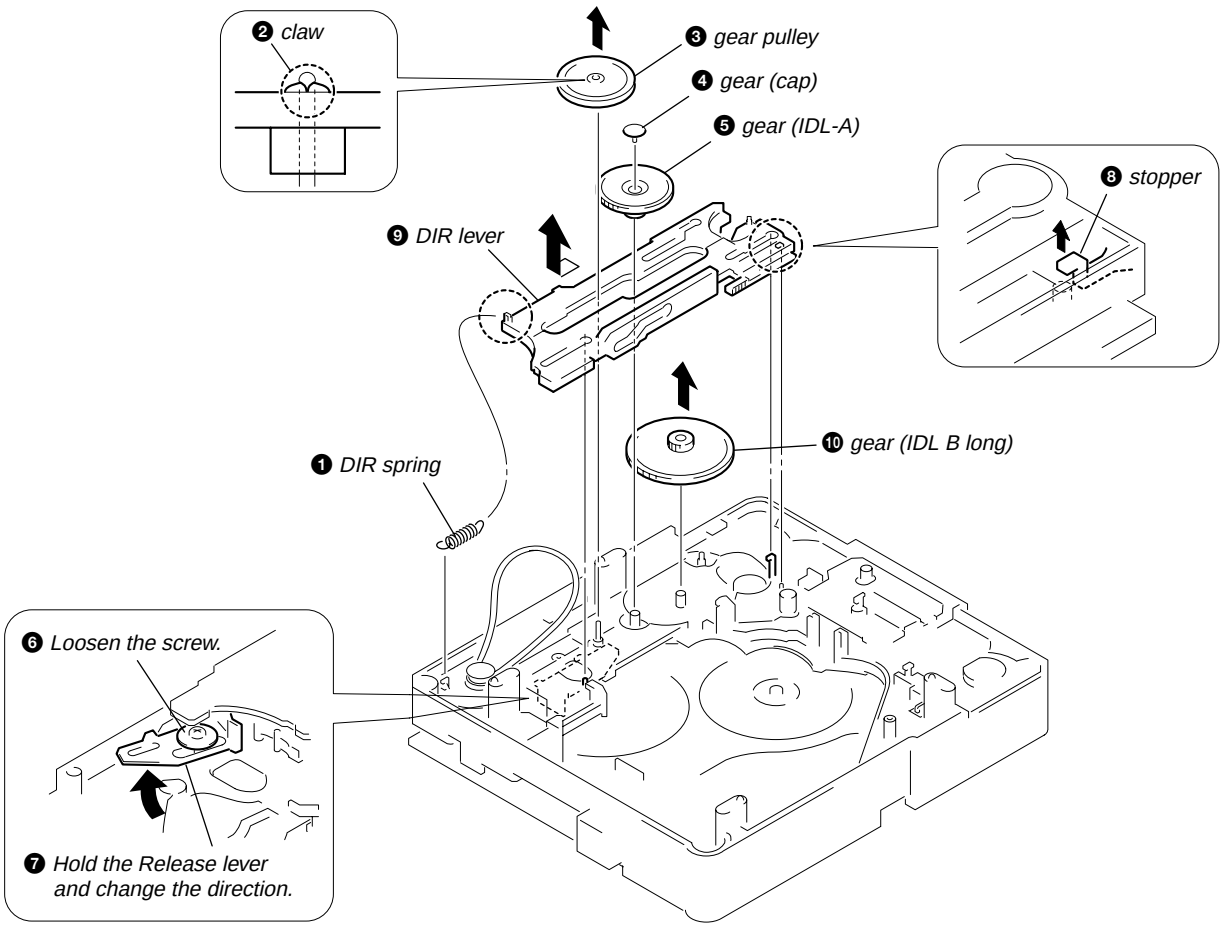
2-38. BASE UNIT SECTION


❻ Remove the base unit in the direction of the arrow.
❹ floating screw (PTPWH M2.6)
❸ SPR-E 213 down holder
❺ floating screw (PTPWH M2.6)
❷ lever (CL UP2)
❶ screw (BVTP2.6 × 8)

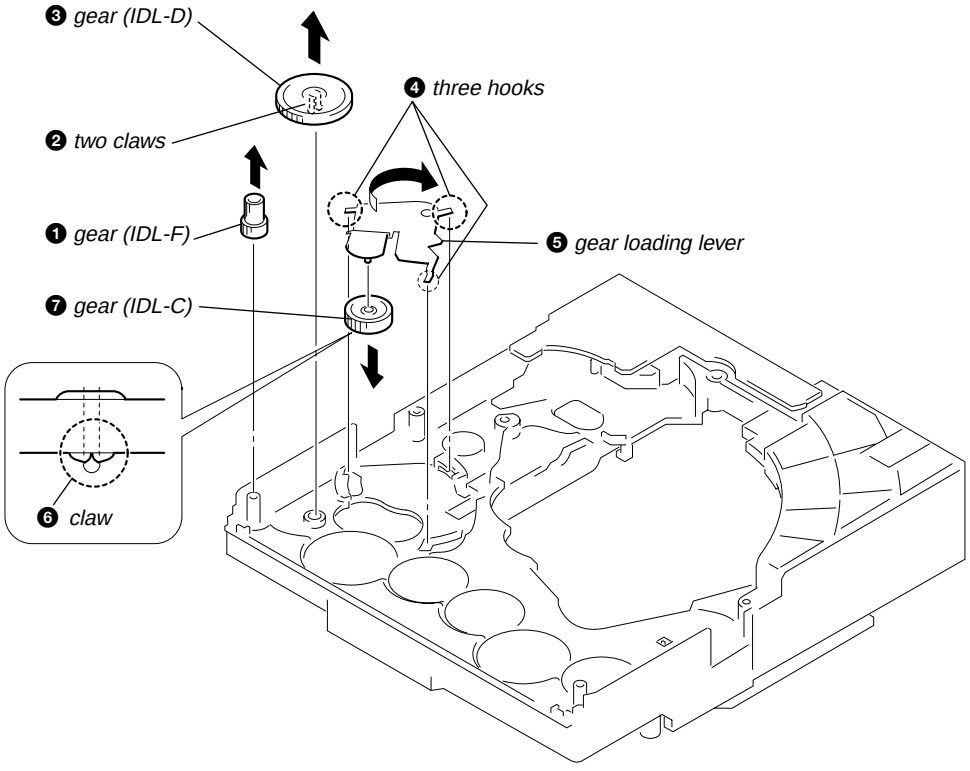
2-39. LEVER (BU LOCK)



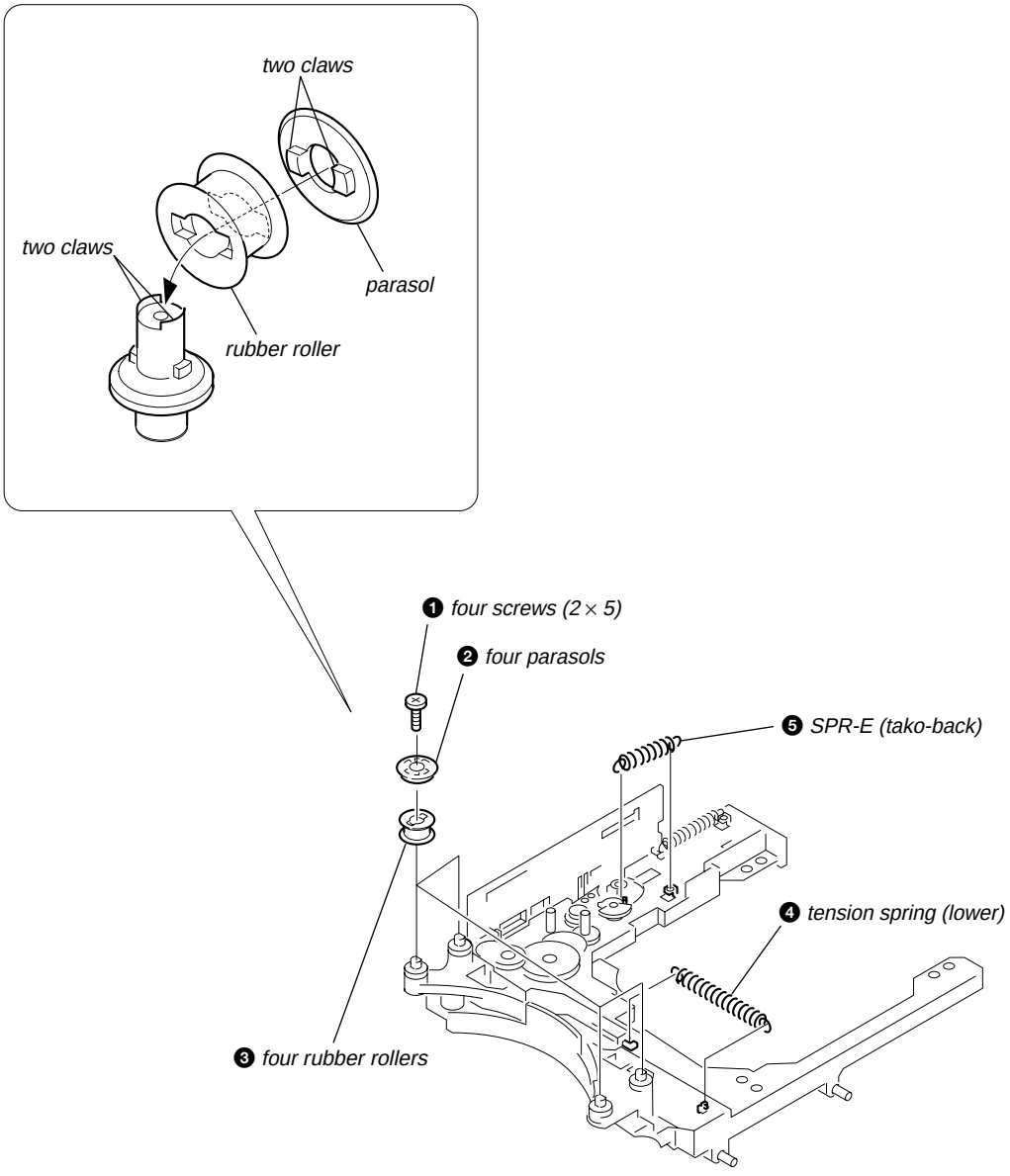
2-40. GEAR (IDL-B)



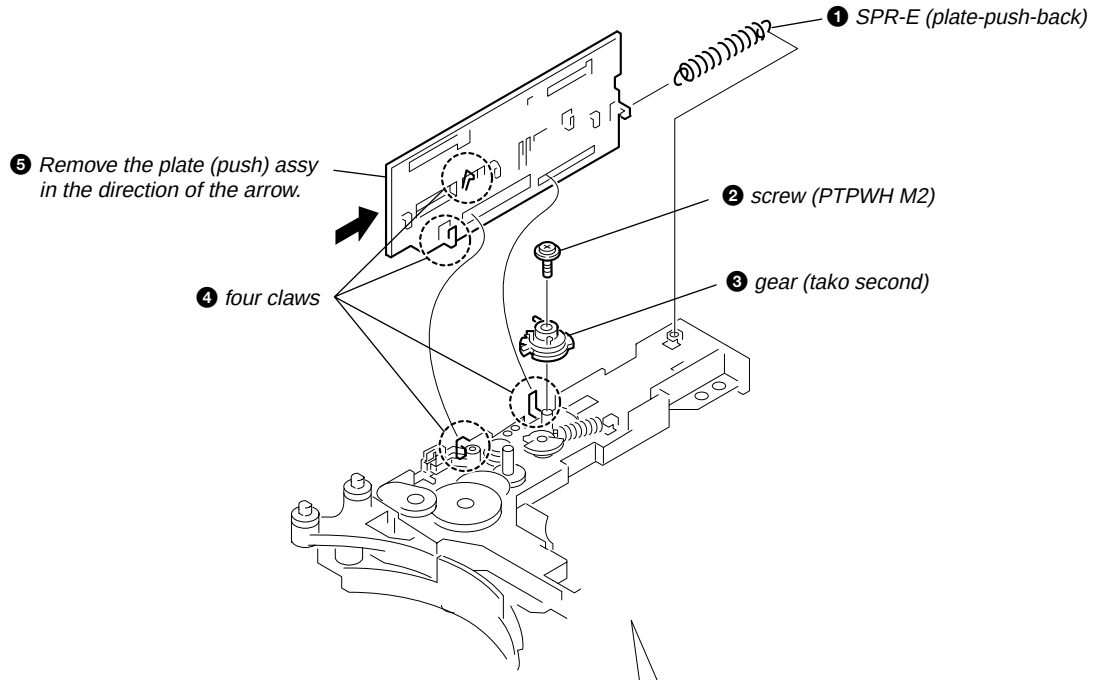
2-41. GEAR (IDL-C)



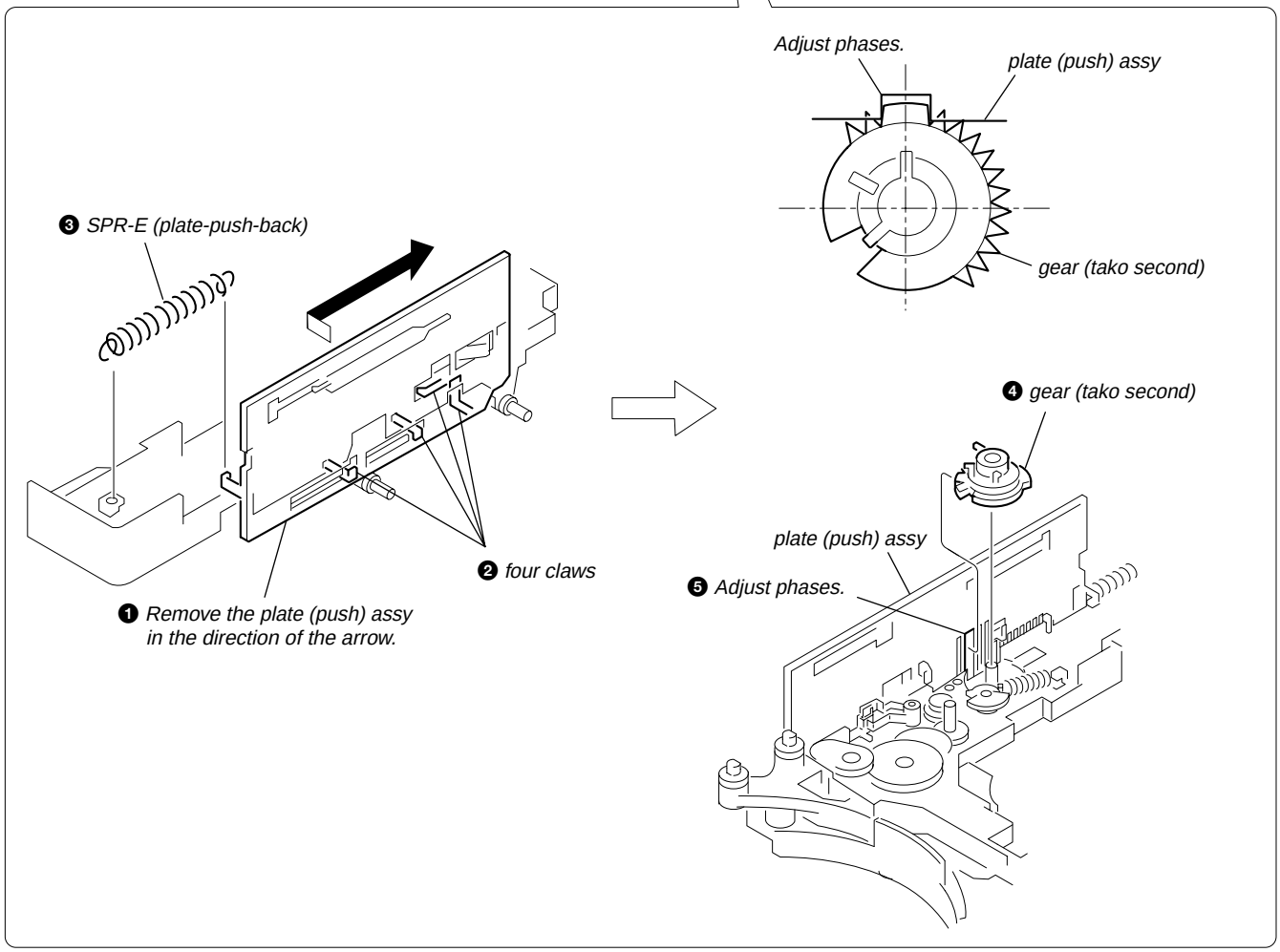
2-42. SPR-E (TAKO-BACK)



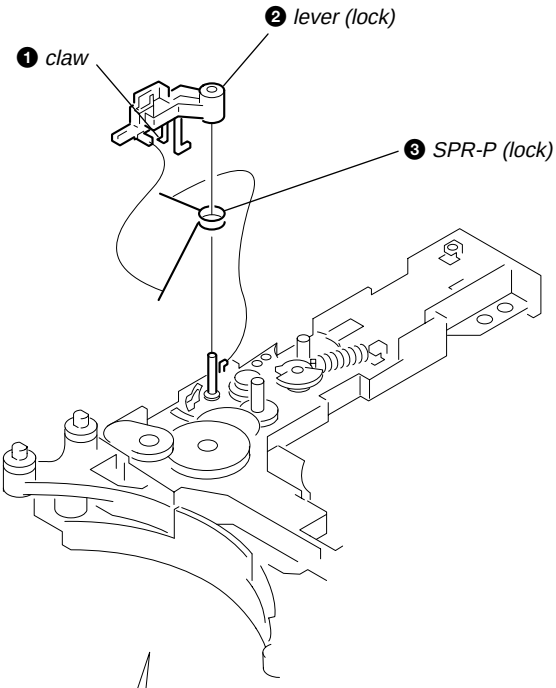
2-43. PLATE (PUSH) ASSY


❶ SPR-E (plate-push-back)
❺ Remove the plate (push) assy in the direction of the arrow.
❷ screw (PTPWH M2)
❸ gear (tako second)
❹ four claws

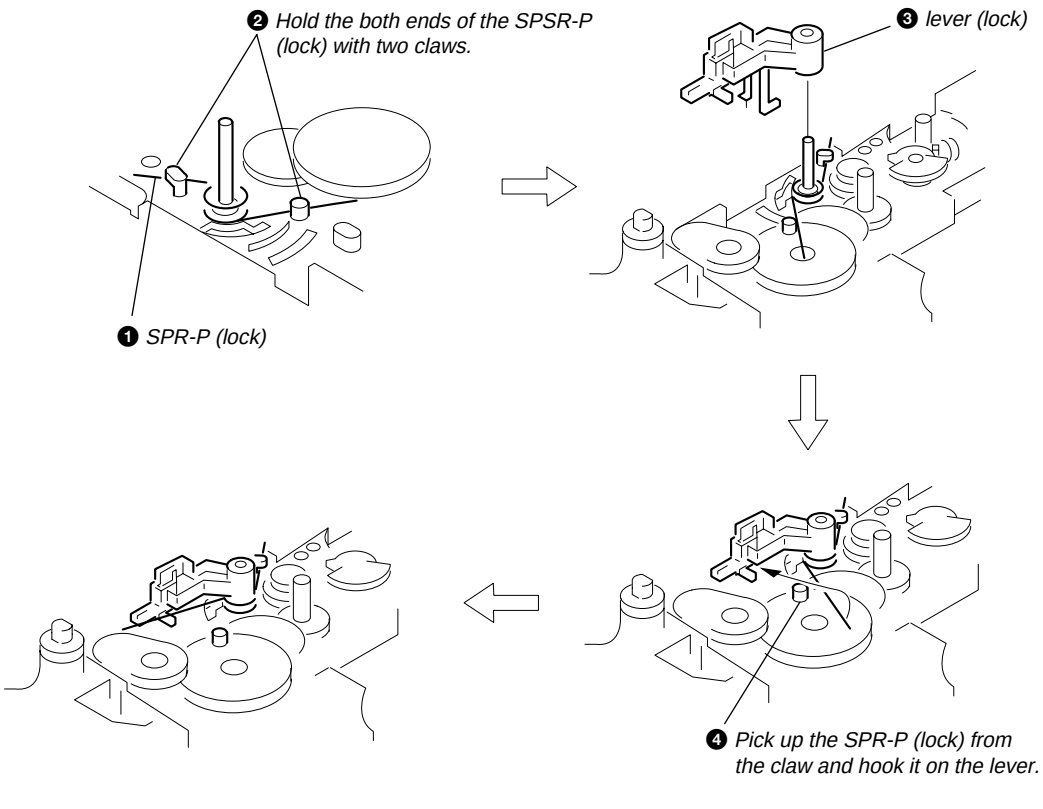
PRECAUTION DURING GEAR (TAKO SECOND) INSTALLATION


Adjust phases.
plate (push) assy
gear (tako second)
❸ SPR-E (plate-push-back)
❹ gear (tako second)
plate (push) assy
❺ Adjust phases.
❷ four claws
❶ Remove the plate (push) assy in the direction of the arrow.

2-44. SPR-P (LOCK)



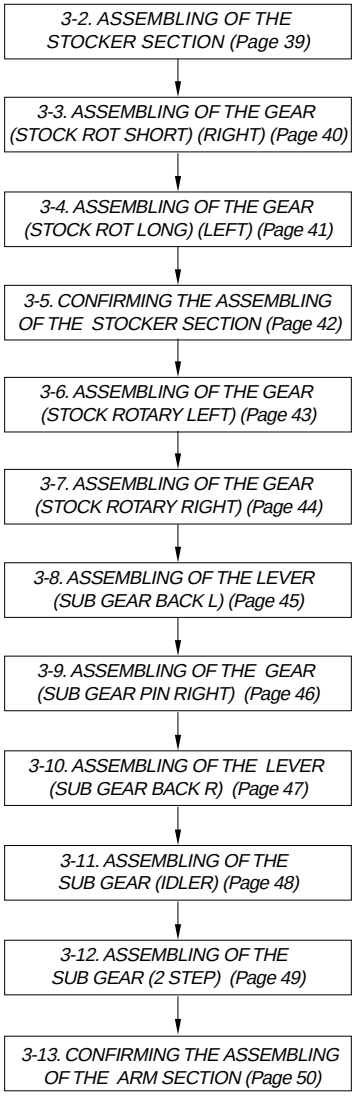
PRECAUTION DURING LEVER INSTALLATION


❷ Hold the both ends of the SPSR-P (lock) with two claws.
❸ lever (lock)
❶ SPR-P (lock)
❹ Pick up the SPR-P (lock) from the claw and hook it on the lever.

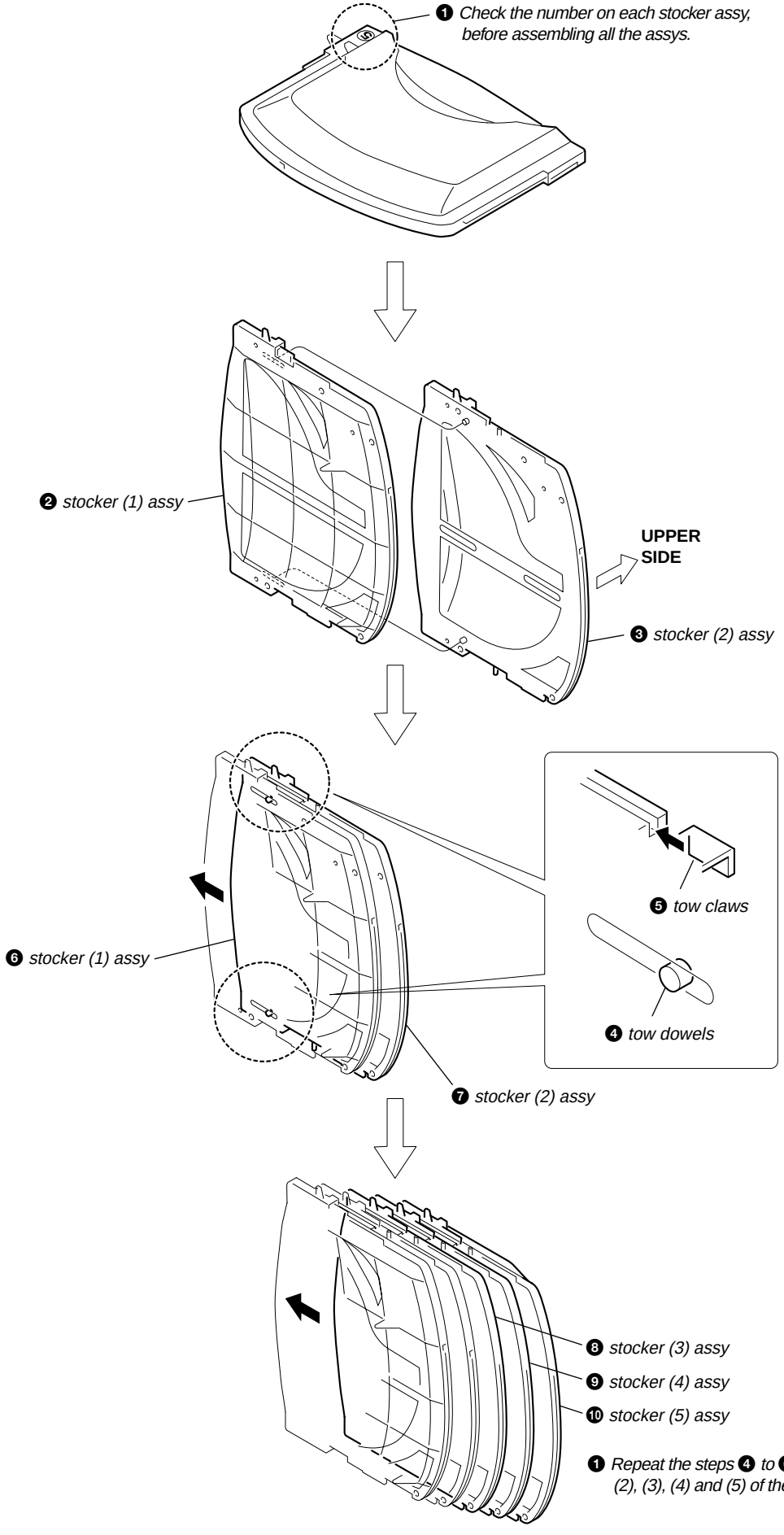
SECTION 3
ASSEMBLY

• This is can be assemble according to the following sequence.

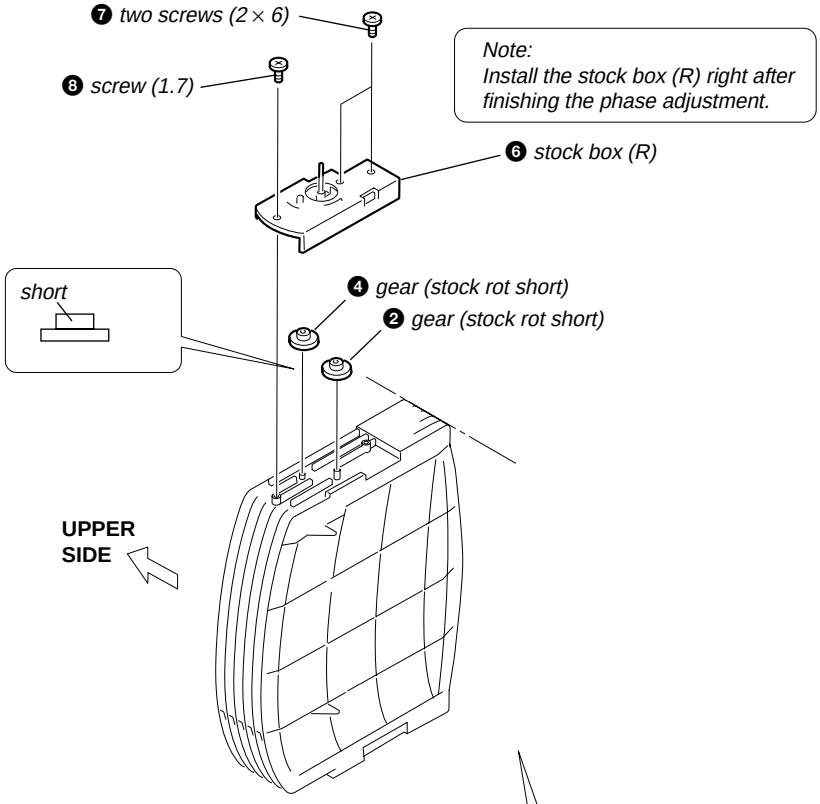
3-1. ASSEMBLY FLOW


3-2. ASSEMBLING OF THE STOCKER SECTION (Page 39)
3-3. ASSEMBLING OF THE GEAR (STOCK ROT SHORT) (RIGHT) (Page 40)
3-4. ASSEMBLING OF THE GEAR (STOCK ROT LONG) (LEFT) (Page 41)
3-5. CONFIRMING THE ASSEMBLING OF THE STOCKER SECTION (Page 42)
3-6. ASSEMBLING OF THE GEAR (STOCK ROTARY LEFT) (Page 43)
3-7. ASSEMBLING OF THE GEAR (STOCK ROTARY RIGHT) (Page 44)
3-8. ASSEMBLING OF THE LEVER (SUB GEAR BACK L) (Page 45)
3-9. ASSEMBLING OF THE GEAR (SUB GEAR PIN RIGHT) (Page 46)
3-10. ASSEMBLING OF THE LEVER (SUB GEAR BACK R) (Page 47)
3-11. ASSEMBLING OF THE SUB GEAR (IDLER) (Page 48)
3-12. ASSEMBLING OF THE SUB GEAR (2 STEP) (Page 49)
3-13. CONFIRMING THE ASSEMBLING OF THE ARM SECTION (Page 50)

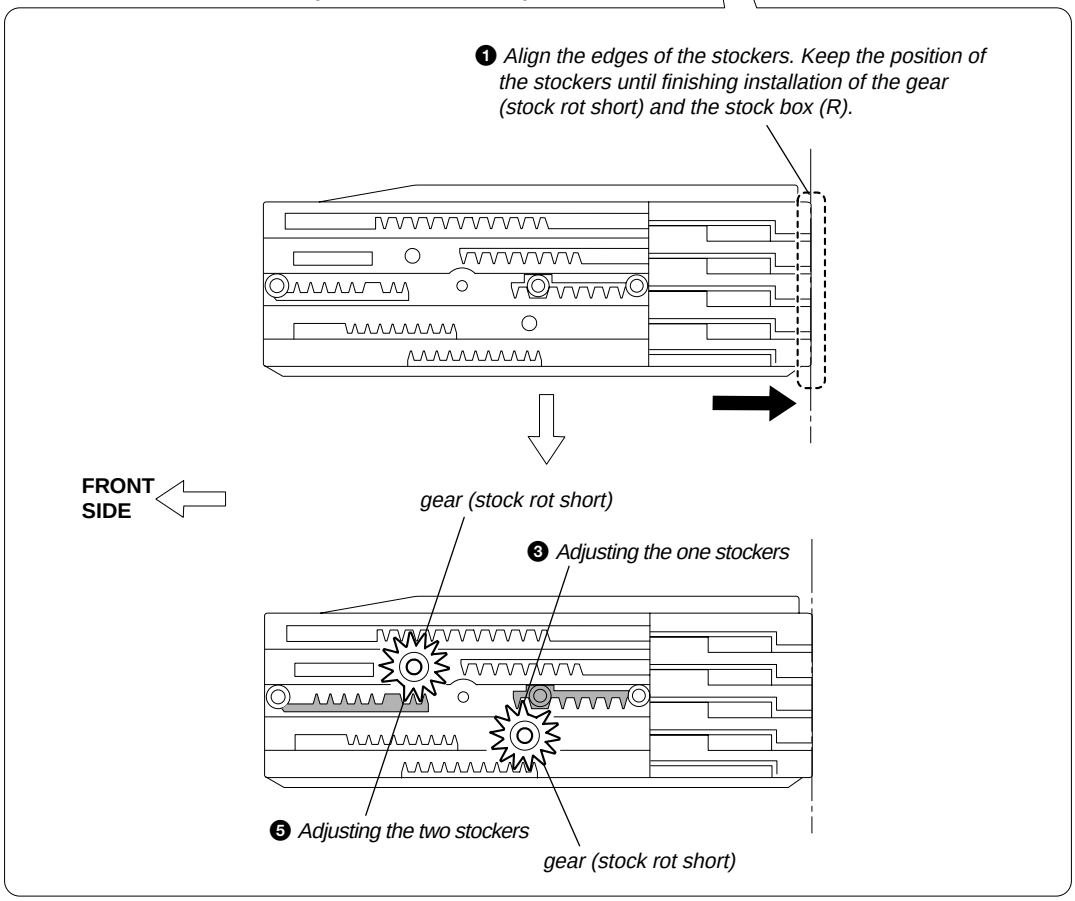
3-2. ASSEMBLING OF THE STOCKER SECTION


❶ Check the number on each stocker assy, before assembling all the assys.
❷ stocker (1) assy
UPPER SIDE
❸ stocker (2) assy
❺ tow claws
❻ stocker (1) assy
❹ tow dowels
❼ stocker (2) assy
❽ stocker (3) assy
❾ stocker (4) assy
❿ stocker (5) assy
❶ Repeat the steps ❹ to ❻, when installing the part (2), (3), (4) and (5) of the stocker assy.

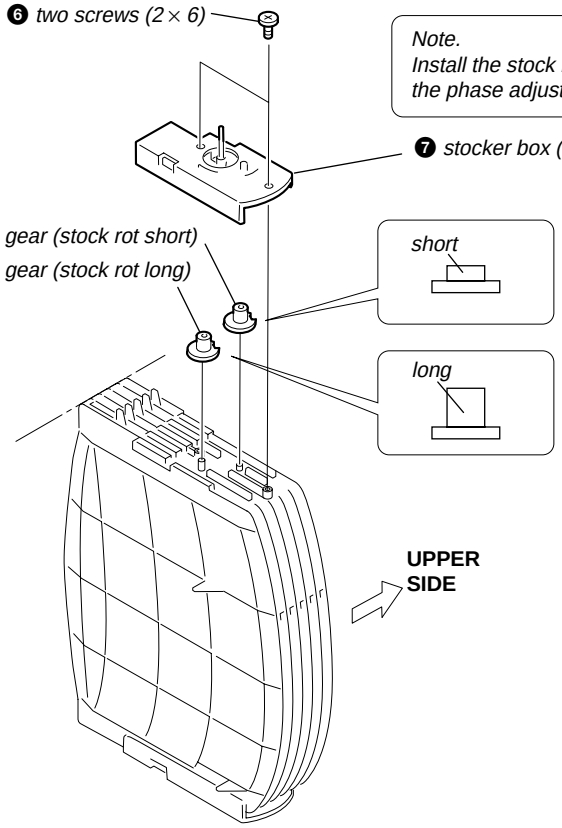
3-3. ASSEMBLING OF THE GEAR (STOCK ROT SHORT) (RIGHT)


❼ two screws (2 × 6)
❽ screw (1.7)
Note:
Install the stock box (R) right after finishing the phase adjustment.
❻ stock box (R)
short
❹ gear (stock rot short)
❷ gear (stock rot short)
UPPER SIDE

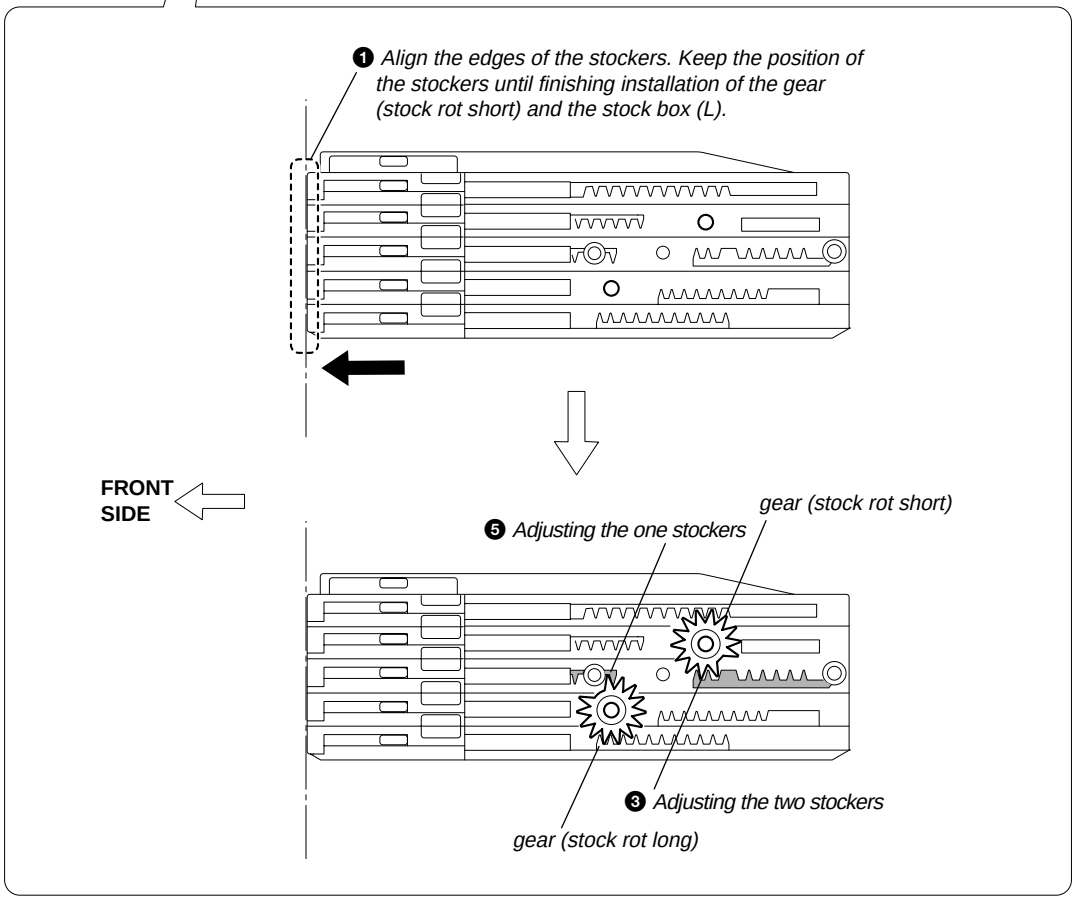
PRECAUTION DURING GEAR (STOCK ROT SHORT) INSTALLATION


❶ Align the edges of the stockers. Keep the position of the stockers until finishing installation of the gear (stock rot short) and the stock box (R).
FRONT SIDE
gear (stock rot short)
❸ Adjusting the one stockers
❺ Adjusting the two stockers
gear (stock rot short)

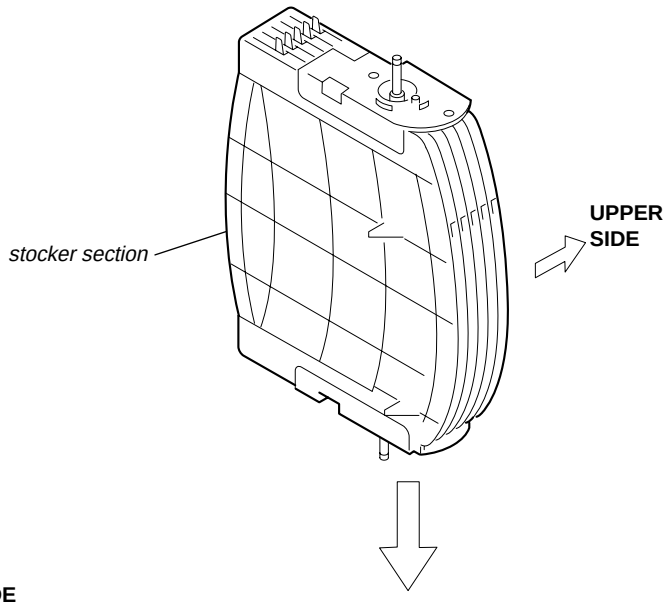
3-4. ASSEMBLING OF THE GEAR (STOCK ROT LONG) (LEFT)



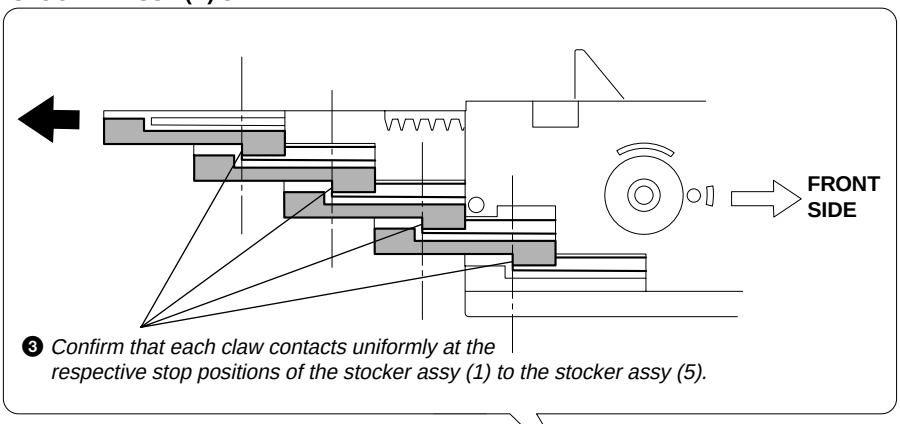
PRECAUTION DURING GEAR (STOCK ROT SHORT, STOCK ROT SHORT LONG) INSTALLATION

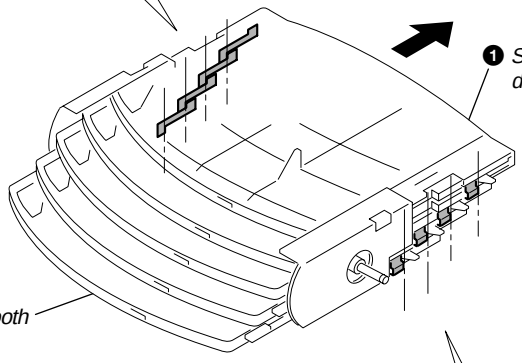

❶ Align the edges of the stockers. Keep the position of the stockers until finishing installation of the gear (stock rot short) and the stock box (L).
FRONT SIDE
❺ Adjusting the one stockers
gear (stock rot short)
❸ Adjusting the two stockers
gear (stock rot long)

3-5. CONFIRMING THE ASSEMBLING OF THE STOCKER SECTION

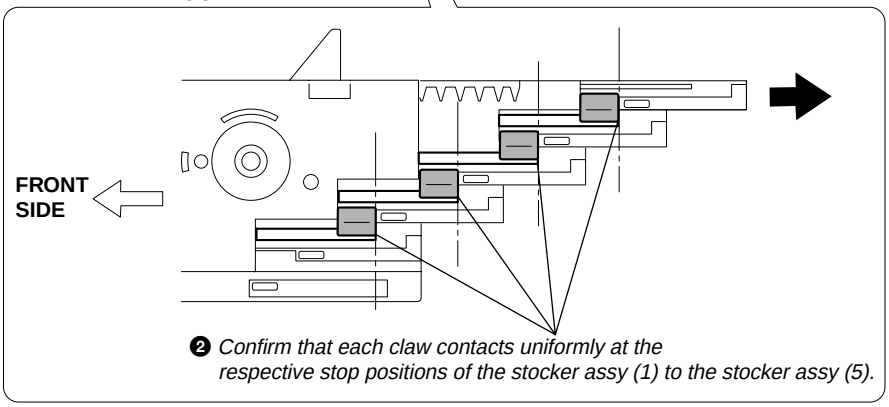


STOCKER ASSY (R) SIDE

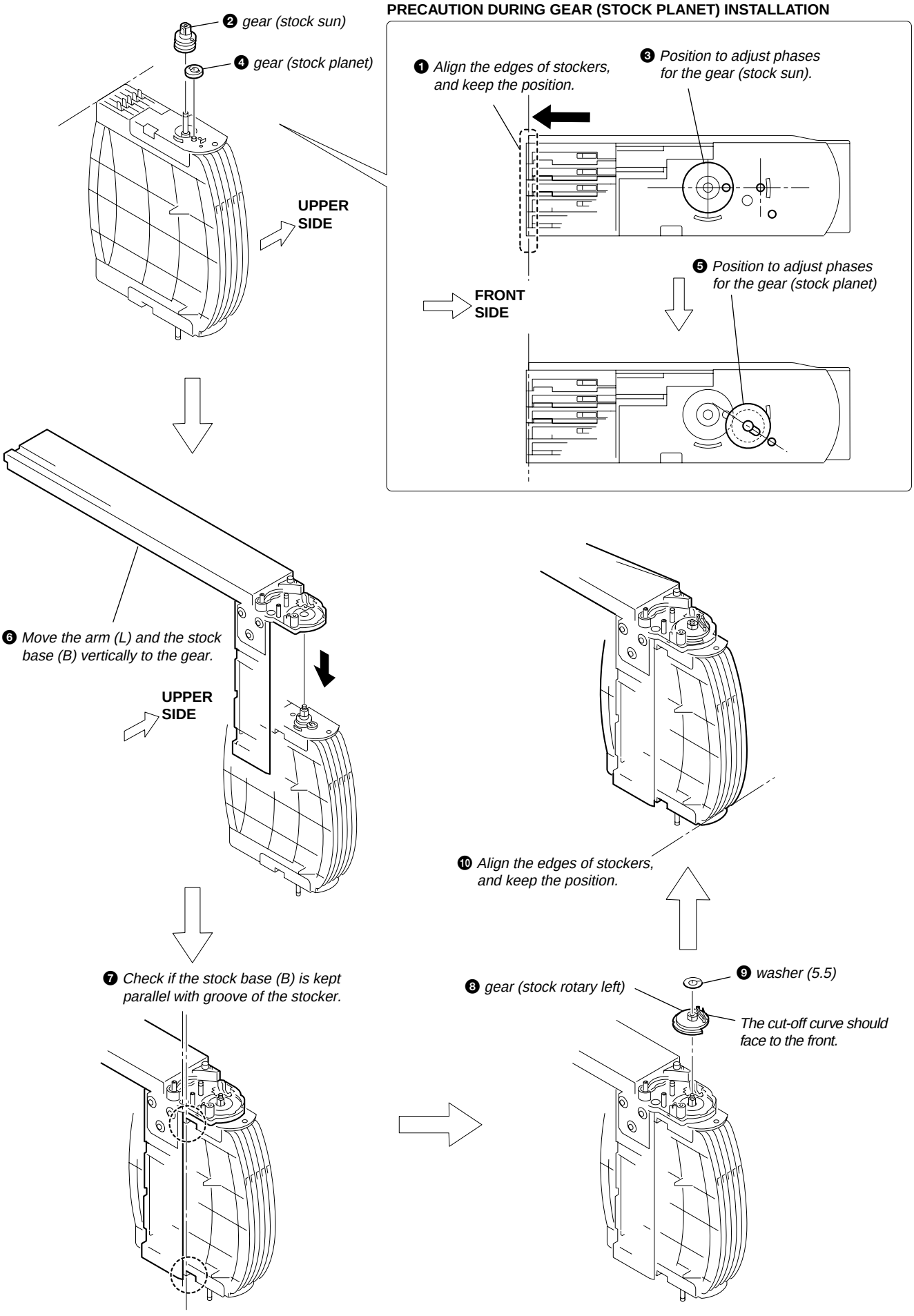

FRONT SIDE
❸ Confirm that each claw contacts uniformly at the respective stop positions of the stocker assy (1) to the stocker assy (5).


❶ Slide the stocker assy in the direction of the arrow.
❹ Confirm the stocker assys move smooth by sliding the stocker assys (1) to (5)
UPPER SIDE

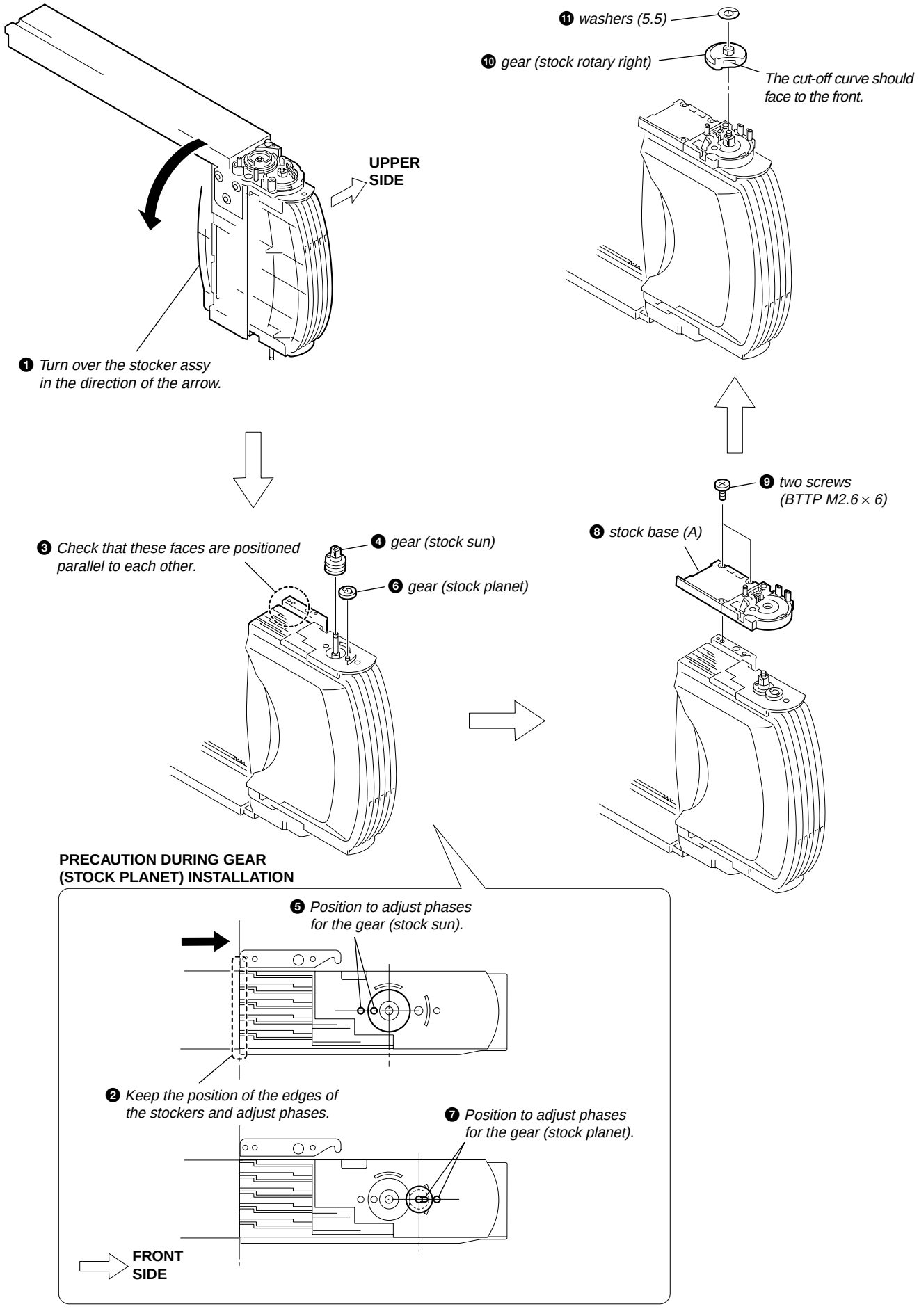
STOCKER ASSY (L) SIDE


FRONT SIDE
❷ Confirm that each claw contacts uniformly at the respective stop positions of the stocker assy (1) to the stocker assy (5).

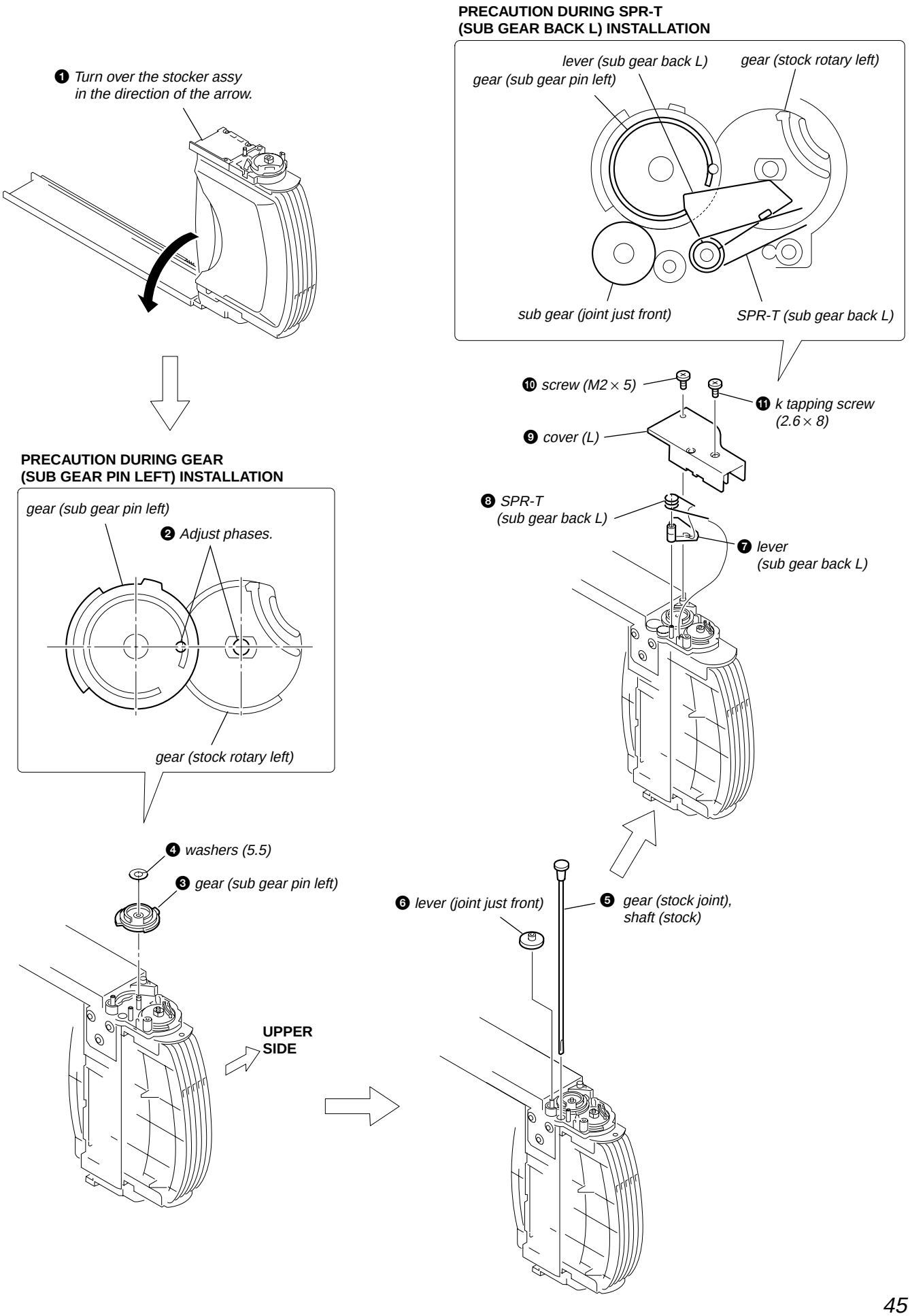
3-6. ASSEMBLING OF THE GEAR (STOCK ROTARY LEFT)


❷ gear (stock sun)
❹ gear (stock planet)
UPPER SIDE
PRECAUTION DURING GEAR (STOCK PLANET) INSTALLATION
❶ Align the edges of stockers, and keep the position.
❸ Position to adjust phases for the gear (stock sun).
FRONT SIDE
❺ Position to adjust phases for the gear (stock planet)
❻ Move the arm (L) and the stock base (B) vertically to the gear.
UPPER SIDE
❿ Align the edges of stockers, and keep the position.
❼ Check if the stock base (B) is kept parallel with groove of the stocker.
❽ gear (stock rotary left)
❾ washer (5.5)
The cut-off curve should face to the front.

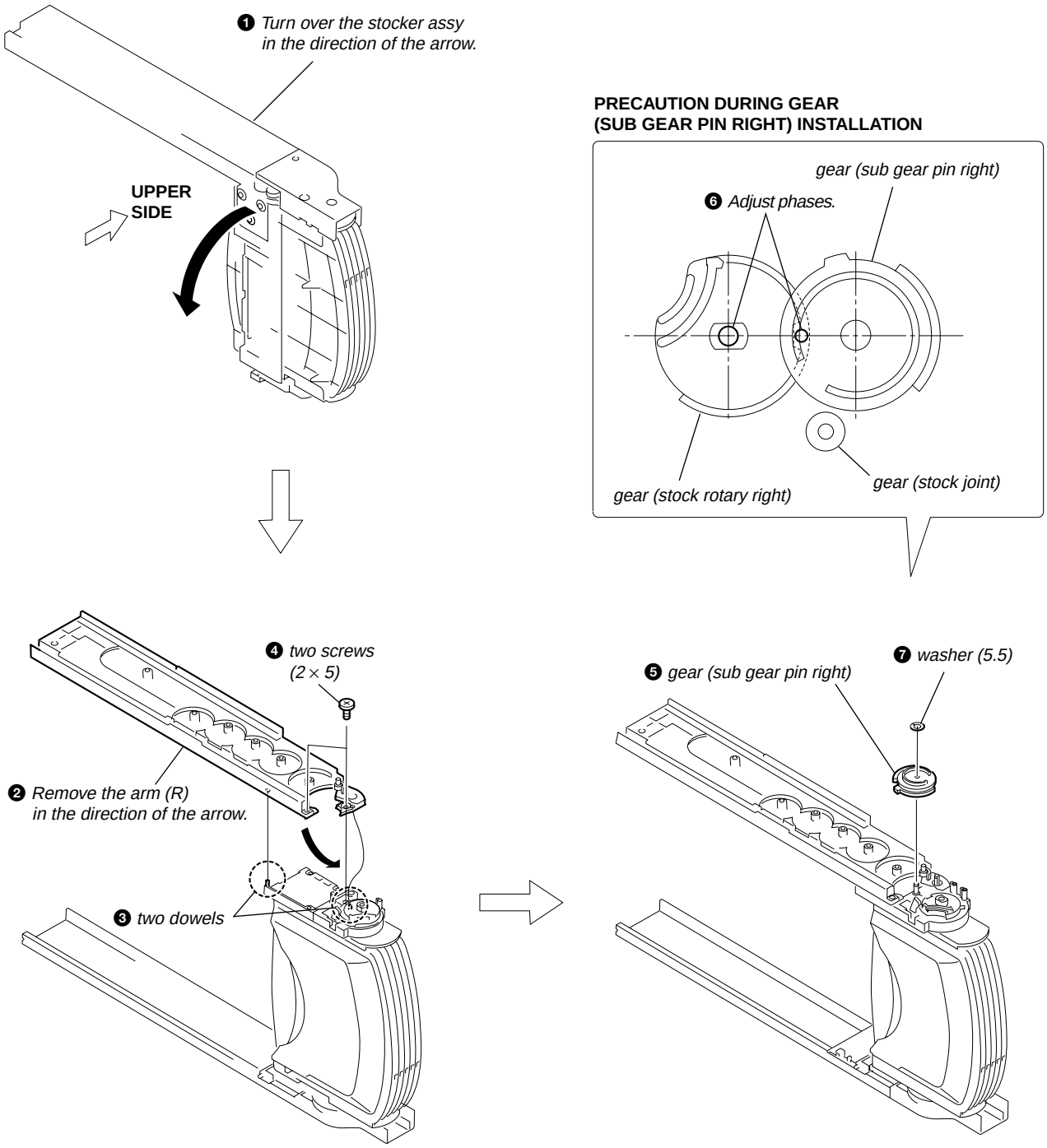
3-7. ASSEMBLING OF THE GEAR (STOCK ROTARY RIGHT)


❶ Turn over the stocker assy in the direction of the arrow.
UPPER SIDE
❸ Check that these faces are positioned parallel to each other.
❹ gear (stock sun)
❻ gear (stock planet)
❽ stock base (A)
❾ two screws (BTTP M2.6 × 6)
❿ gear (stock rotary right)
⓫ washers (5.5)
The cut-off curve should face to the front.
PRECAUTION DURING GEAR (STOCK PLANET) INSTALLATION
❺ Position to adjust phases for the gear (stock sun).
❷ Keep the position of the edges of the stockers and adjust phases.
❼ Position to adjust phases for the gear (stock planet).
FRONT SIDE

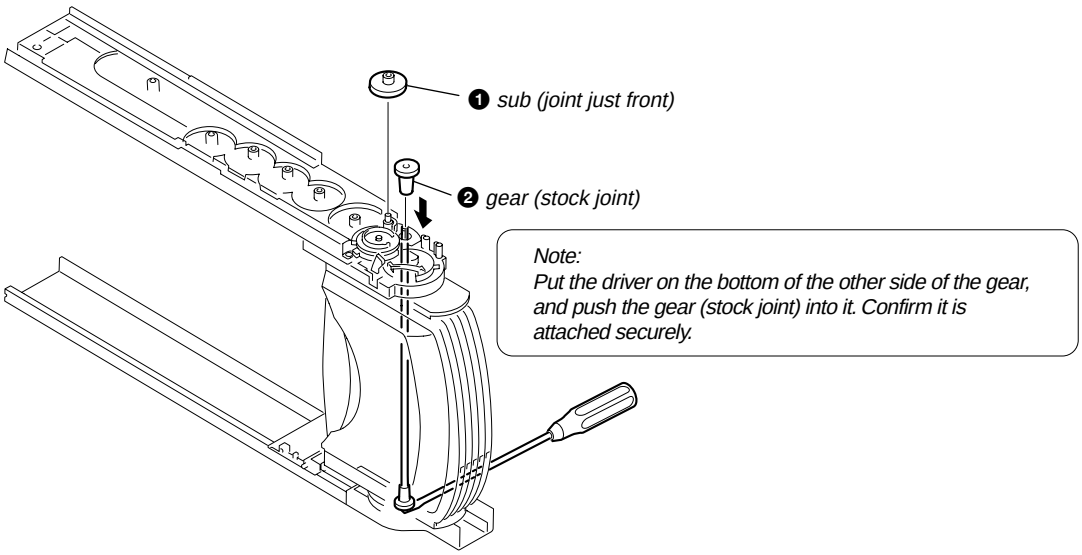
3-8. ASSEMBLING OF THE LEVER (SUB GEAR BACK L)

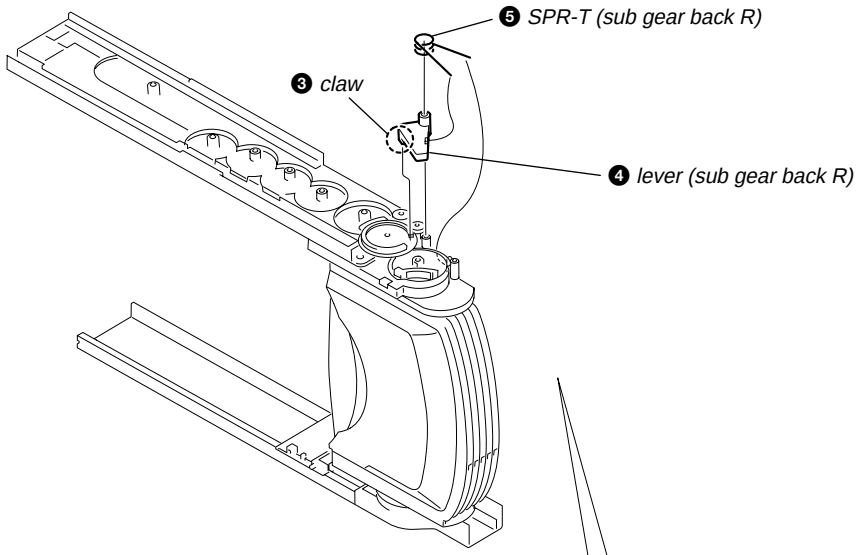


3-9. ASSEMBLING OF THE GEAR (SUB GEAR PIN RIGHT)

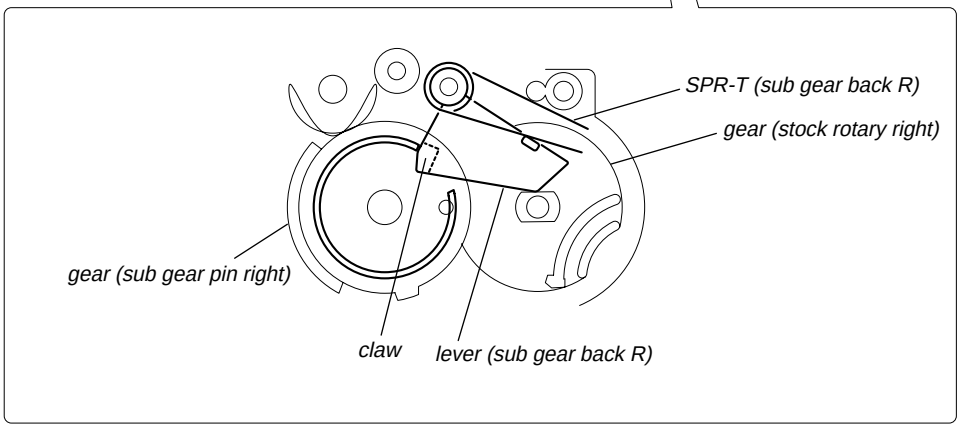

❶ Turn over the stocker assy in the direction of the arrow.
UPPER SIDE
PRECAUTION DURING GEAR (SUB GEAR PIN RIGHT) INSTALLATION
gear (sub gear pin right)
❻ Adjust phases.
gear (stock rotary right)
gear (stock joint)
❹ two screws (2 × 5)
❷ Remove the arm (R) in the direction of the arrow.
❸ two dowels
❺ gear (sub gear pin right)
❼ washer (5.5)

3-10. ASSEMBLING OF THE LEVER (SUB GEAR BACK R)

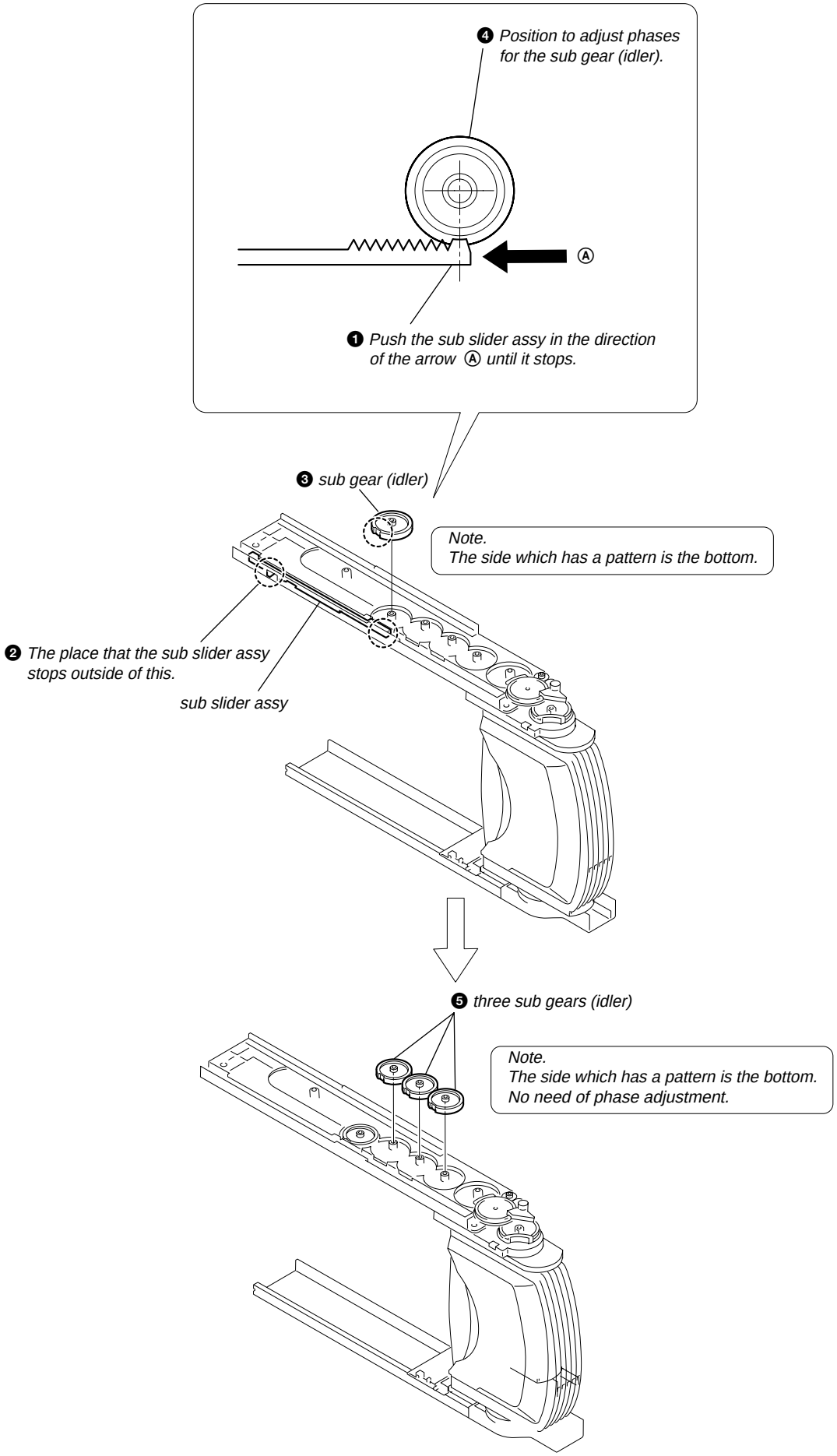

❶ sub (joint just front)
❷ gear (stock joint)
Note:
Put the driver on the bottom of the other side of the gear, and push the gear (stock joint) into it. Confirm it is attached securely.



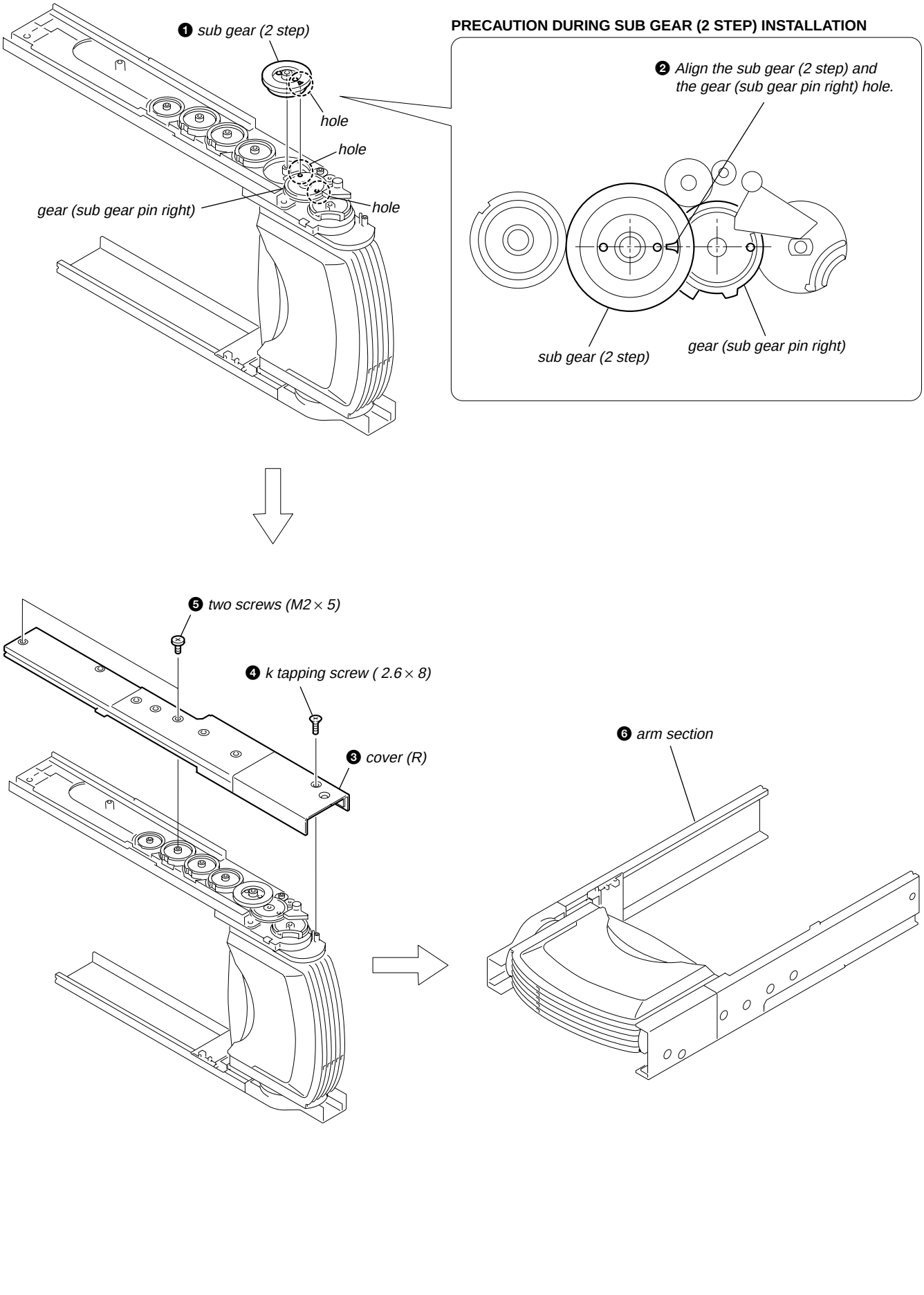
PRECAUTION DURING SPR-T (SUB GEAR BACK R) INSTALLATION



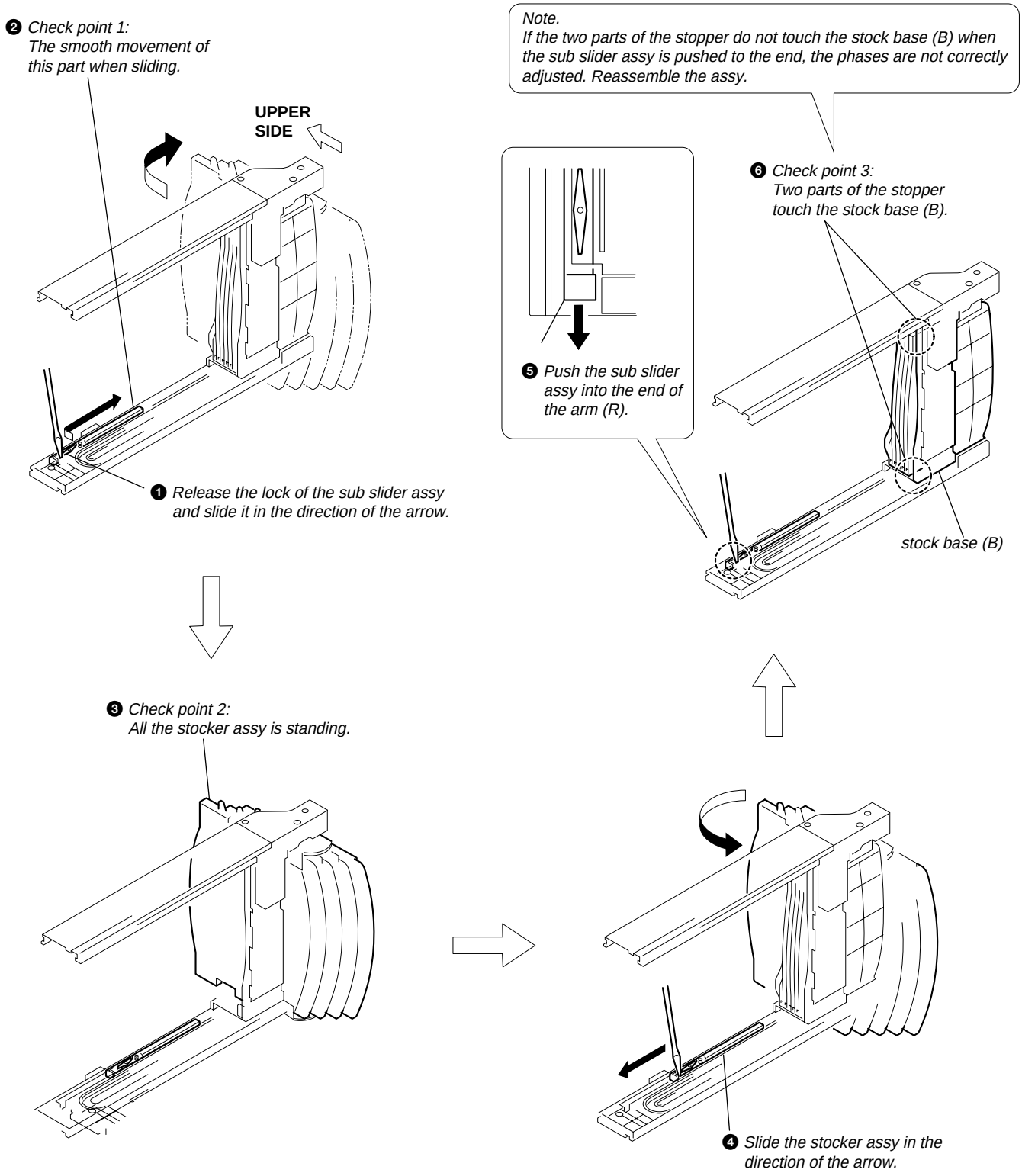
3-11. ASSEMBLING OF THE SUB GEAR (IDLER)


❹ Position to adjust phases for the sub gear (idler).
Ⓐ
❶ Push the sub slider assy in the direction of the arrow Ⓐ until it stops.
❸ sub gear (idler)
Note.
The side which has a pattern is the bottom.
❷ The place that the sub slider assy stops outside of this.
sub slider assy
❺ three sub gears (idler)
Note.
The side which has a pattern is the bottom.
No need of phase adjustment.

3-12. ASSEMBLING OF THE SUB GEAR (2 STEP)


❶ sub gear (2 step)
hole
hole
gear (sub gear pin right)
hole
PRECAUTION DURING SUB GEAR (2 STEP) INSTALLATION
❷ Align the sub gear (2 step) and the gear (sub gear pin right) hole.
sub gear (2 step)
gear (sub gear pin right)
❺ two screws (M2 × 5)
❹ k tapping screw (2.6 × 8)
❸ cover (R)
❻ arm section

3-13. CONFIRMING THE ASSEMBLING OF THE ARM SECTION


❷ Check point 1:
The smooth movement of this part when sliding.
UPPER SIDE
❶ Release the lock of the sub slider assy and slide it in the direction of the arrow.
❸ Check point 2:
All the stocker assy is standing.
❹ Slide the stocker assy in the direction of the arrow.
Note.
If the two parts of the stopper do not touch the stock base (B) when the sub slider assy is pushed to the end, the phases are not correctly adjusted. Reassemble the assy.
❺ Push the sub slider assy into the end of the arm (R).
❻ Check point 3:
Two parts of the stopper touch the stock base (B).
stock base (B)

SECTION 4
TEST MODE

[COMMON TEST MODE]

- This mode is used to check operations of Amplifier.

Procedure:

1. Press the I/⏻ key to turn the power ON.
2. Press three keys of DSGX and PLAY MODE/TUNING MODE and ENTER simultaneously.
3. When the COMMON test mode is activated, "PLAY SLEEP" blinks on the fluorescent indicator tube.
4. Turn the EQ knob counterclockwise, "TONE MIN" is displayed on the fluorescent indicator tube. Turn the EQ knob clockwise, "TONE MAX" is displayed on the fluorescent indicator tube.
   Turn the EQ knob clockwise or counterclockwise, "TONEFLAT" is displayed on the fluorescent indicator tube. Turn the VOLUME knob counterclockwise, "VOL MIN" is displayed on the liquid crystal display. Turn the VOLUME knob clockwise, "VOL MAX" is displayed on the fluorescent indicator tube.
5. To release this mode, press the I/⏻ key.

[PANEL TEST MODE]

- This mode is used to check the fluorescent indicator tube, LED, model, destination, software version and key.

Procedure:

1. Press the I/⏻ key to turn the power ON.
2. Press three keys of DSGX, ILLUMINATION and ENTER simultaneously.
3. Fluorescent indicator tube is all turned on and each LED of CD ▶II , TUNER/BAND, TAPE ▶ , DSGX and STANDBY blinks every 0.5 seconds.
4. When you want to enter the model, destination and version display mode, press the PLAY MODE/TUNING MODE key. The model and destination are displayed alternately on the fluorescent indicator tube.
5. Each time PLAY MODE/TUNING MODE key is pressed, the display changes starting from MC version, GC version, CD version, CDD version, CDMA version, CDMB version, BDA version, BDB version, ST version, TA version, TM version, and TC version this order, and returns to the MC version display on the fluorescent indicator tube.
6. Press the CD SYNC key, the key check mode is activated.
7. In the key check mode, the fluorescent indicator tube displays "K 0 J0 V0".
8. Each time a button is pressed, "K" value increases. However, once a button is pressed, it is no longer taken into account.
   All keys are pressed, display becomes "K24".
9. "V" value increases 1, 2, 3 ... if turn the VOLUME knob clockwise, or it decreases 0, 9, 8 ... if turn the knob counterclockwise
10. When FUNCTION key is pressed while the version numbers are being displayed except model and destination, year, month and day of the software creation display. When FUNCTION key is pressed again, the display returns to the software version display. In this state, each time PLAY MODE/TUNING MODE key is pressed, the year, month and day of creation of the software versions are displayed on the fluorescent indicator tube in the same order of version display.
11. To release this mode, press three keys in the same manner as step 2, or disconnect the power cord.

[COLD RESET]

- The cold reset clears all data including preset data stored in the RAM to initial conditions. Execute this mode when returning the set to the customer.

Procedure:

1. Press the I/⏻ key to turn the power ON.
2. Press three keys of I/⏻ , ILLUMINATION and STOP simultaneously.
3. The fluorescent indicator tube becomes blank instantaneously, and the set is reset.

[SHIP MODE (NO MEMORY CLEAR)]

- This mode moves the optical pick-up to the position durable to vibration. Use this mode when returning the set to the customer after repair.

Procedure:

1. Press the I/⏻ key to turn the power ON.
2. Press the FUNCTION key to select "CD".
3. Press three keys of ILLUMINATION, STOP and DISC 1 simultaneously.
4. After the "STANDBY" display blinks, "LOCK" is displayed on the fluorescent indicator tube, and the ship mode is set.

[SHIP MODE (MEMORY CLEAR)]

- This mode moves the optical pick-up to the position durable to vibration. Use this mode when returning the set to the customer after repair.

Procedure:

1. Press the I/⏻ key to turn the power ON.
2. Press the FUNCTION key to select "CD".
3. Press three keys of DSGX, DISC 1 and ILLUMINATION simultaneously.
4. After the "STANDBY" display blinks, "LOCK" is displayed on the fluorescent indicator tube, and the ship mode is set.

[CD SLOT LOCK MODE]

- This mode is used to unable to take sample disc out of disc slot in the shop.

Procedure:

1. Press the I/⏻ key to turn the power ON.
2. Press the FUNCTION key to select "CD".
3. While pressing the ⏏ key, press the STOP key for 5 seconds.
4. The message "LOCKED" is displayed on the fluorescent indicator tube and the disc slot is locked. (Even if pressing the ⏏ key, the message "LOCKED" is displayed on the fluorescent indicator tube and the disc slot is locked)
5. To release from this mode, pressing the ⏏ key, press the STOP key for 5 seconds.
6. The message "UNLOCKED" is displayed on the fluorescent indicator tube and the disc slot is unlocked.

[CD SERVICE MODE]

- This mode can run the CD sled motor freely. Use this mode, for instance, when cleaning the optical pick-up.

Procedure:

1. Press the I/⏻ key to turn the power ON.
2. Press the FUNCTION key to select "CD".
3. Press three keys of DSGX, DISC 2 and ILLUMINATION simultaneously.
4. Press the ▶▶ ▷▷I key to move the optical pick-up to outside track, or press the I◁◁ ◀◀ key to inside track.
5. Press the STOP key, "LD OFF" is displayed and laser diode is turned off. Each time STOP key is pressed, laser diode ON/OFF switch is performed.
6. To release this mode, press the I/⏻ key.

[CD ERROR CODE DISPLAY MODE]

This mode can be used for error code display of CD section.

Procedure:

1. Press the I/⏻ button to turn the power on.
2. Press the FUNCTION key to select “CD”.
3. Press three keys of ILLUMINATION, DSGX and DISC 3 simultaneously.
4. When this mode is activated, mechanism deck error code is displayed on the fluorescent indicator tube.
5. Press the 🗀+ 🗀– keys to changed over between optical pick-up error code display mode and mechanism deck error code mode.
6. Turn the ⏮ ◀◀ ▶▶ ⏭ keys to change over display of error history.

[CD SERVO TEST MODE]

- This mode used to check operation of optical pick-up.

Procedure:

1. Press the I/⏻ key to turn the power ON.
2. Press the FUNCTION key to select “CD”.
3. Press three keys of ILLUMINATION, DSGX and DISC 4 simultaneously.
4. To release this mode, press the I/⏻ key.

[CD POWER MANAGE]

This mode is for switch the CD power supply on/off. Even if this state pulls out AC plug, it is held.

Procedure:

1. Press the I/⏻ button to turn the power on.
2. Press the FUNCTION key to select “CD”.
3. Press the I/⏻ button again to turn the power off (standby).
4. While pressing the STOP button, press the I/⏻ button.
5. It turns power on and display “CD POWER”, then display “ON” or “OFF”.

SECTION 5
MECHANICAL ADJUSTMENTS

- **Precaution**

1. Clean the following parts with a denatured-alcohol-moistened swab :

record/playback head	pinch roller
erase head	rubber belts
capstan	idlers

2. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head magnetizer close to the erase head.)
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, appiy suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

- **Torque Measurement**

Mode	Torque meter	Meter reading
FWD	CQ-102C	2.95 – 6.86 mN • m (30 to 70 g • cm) (0.42 – 0.97 oz • inch)
FWD back tension	CQ-102C	0.15 – 5.39 mN • m (1.5 to 5.5 g • cm) (0.021 – 0.076 oz • inch)
FF	CQ-201B	more than 5.89 mN • m (more than 60 g • cm) (more than 0.83 oz • inch)
REW	CQ-201B	more than 5.89 mN • m (more than 60 g • cm) (more than 0.83 oz • inch)

- **Tape Tension Measurement**

Mode	Tension Meter	Meter Reading
FWD	CQ-403A	more than 100 g (more than 3.53 oz)

SECTION 6
ELECTRICAL ADJUSTMENTS

DECK SECTION | 0 dB=0.775 V

1. Demagnetize the record/playback head with a head demagnetizer.
2. Do not use a magnetized screwdriver for the adjustments.

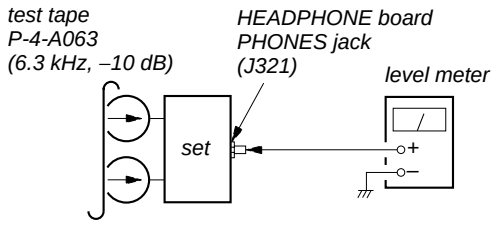
- **Test Tape**

Tape	Signal	Used for
P-4-A063	6.3 kHz, -10 dB	Azimuth Adjustment

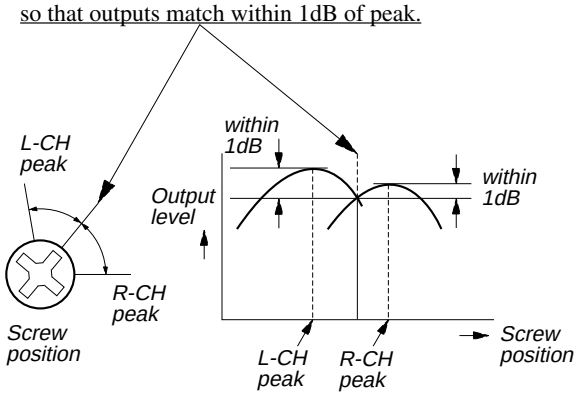
RECORD/PLAYBACK HEAD AZIMUTH ADJUSTMENT

Procedure:

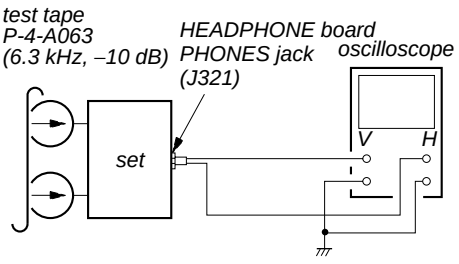
1. Mode: Playback

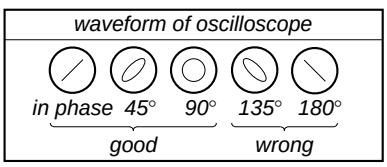


2. Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 1dB of peak.



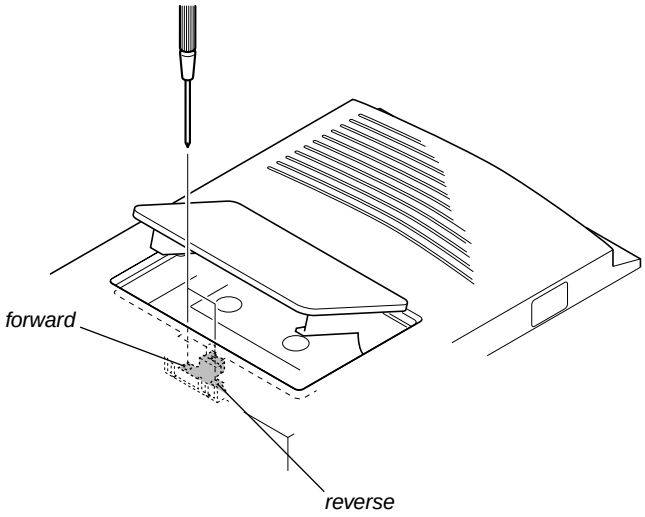
3. Mode: Playback





4. After the adjustments, apply suitable locking compound to the pats adjusted.

Adjustment Location: Record/Playback/Erase Head

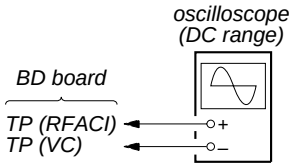


CD SECTION

Note:

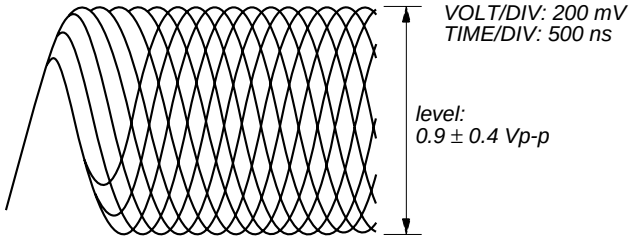
1. CD Block is basically constructed to operate without adjustment.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10 MΩ impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.
5. Check the focus bias check when optical pick-up block is replaced.

FOCUS BIAS CHECK

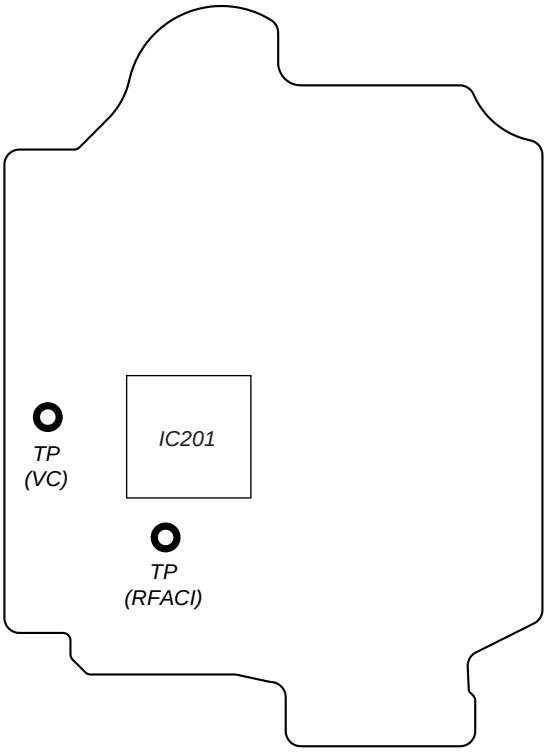


Procedure :

1. Connect oscilloscope to TP (RFACI) and TP (VC) on the BD board.
2. Press the I/⏻ button to turn the power ON, and press the ⏏ (CD) button to open the CD disc tray.
3. Set disc (YEDS-18) on the tray and press the CD ▶II button to playback.
4. Confirm that oscilloscope waveform is as shown in the figure below. (eye pattern)
   A good eye pattern means that the diamond shape (◊) in the center of the waveform can be clearly distinguished.



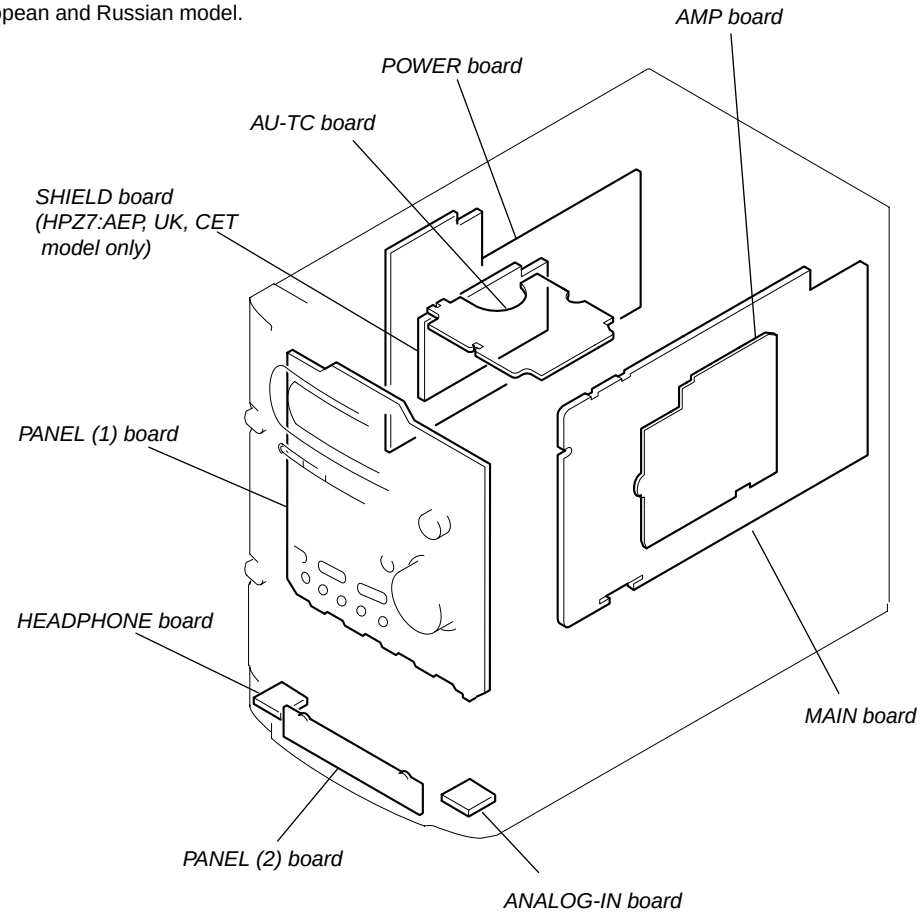
Checking Location:
– BD Board (Conductor Side) –

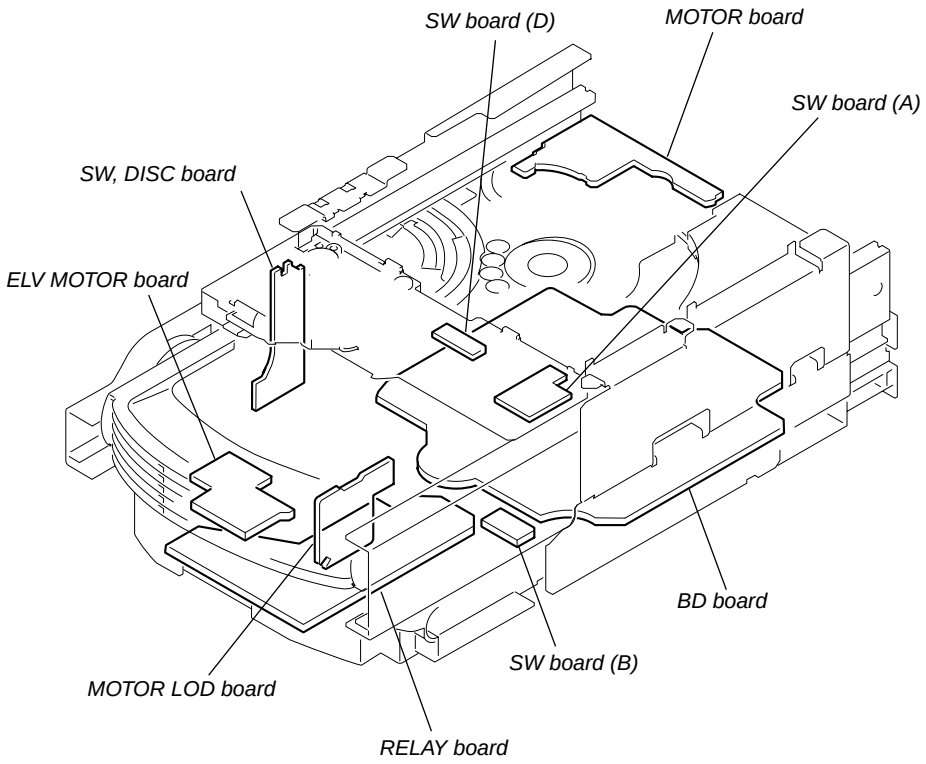


SECTION 7
DIAGRAMS

- **Circuit Boards Location**

- Abbreviation
  CET : East European and Russian model.





THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS. (In addition to this, the necessary note is printed in each block.)

For Schematic Diagrams.
Note:

- All capacitors are in µF unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- : nonflammable resistor.
- : fusible resistor.
- : panel designation.

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

- : B+ Line.
- : B– Line.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  ∗ : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  : TUNER
  : CD
  : AUDIO
  : AUX
  : PB (TAPE)
  : REC (TAPE)
  : DIGITAL OUT
  : ANALOG IN
- Abbreviation

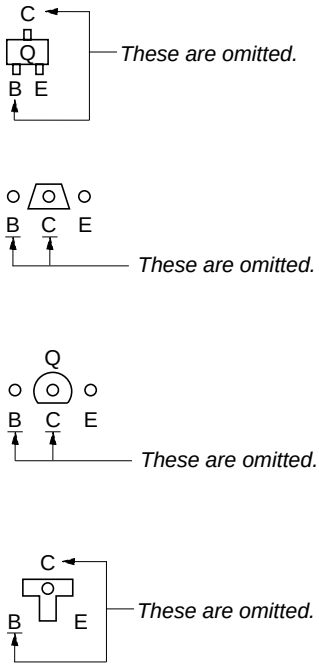
AR	: Argentina model
AUS	: Australian model
CND	: Canadian model
CET	: East European and Russian model
E51	: Chilean and Peruvian model
KR	: Korea model
MX	: Mexican model
SP	: Singapore model
TW	: Taiwan model

For Printed Wiring Boards.
Note:

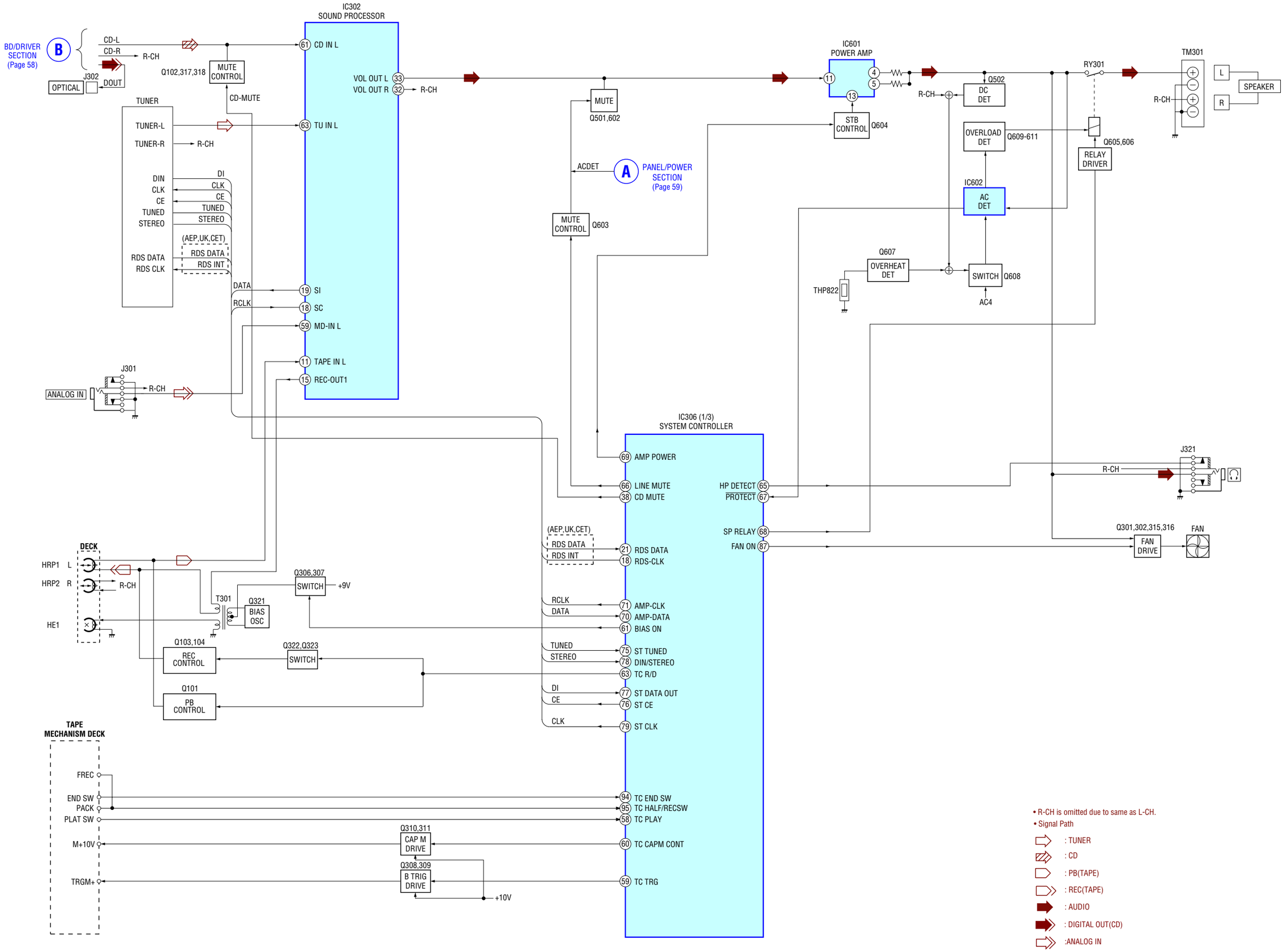
- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- △ : internal component.
- : Pattern from the side which enables seeing.

Caution:	
Pattern face side: (Side A)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side B)	Parts on the parts face side seen from the parts face are indicated.

- Indication of transistor.

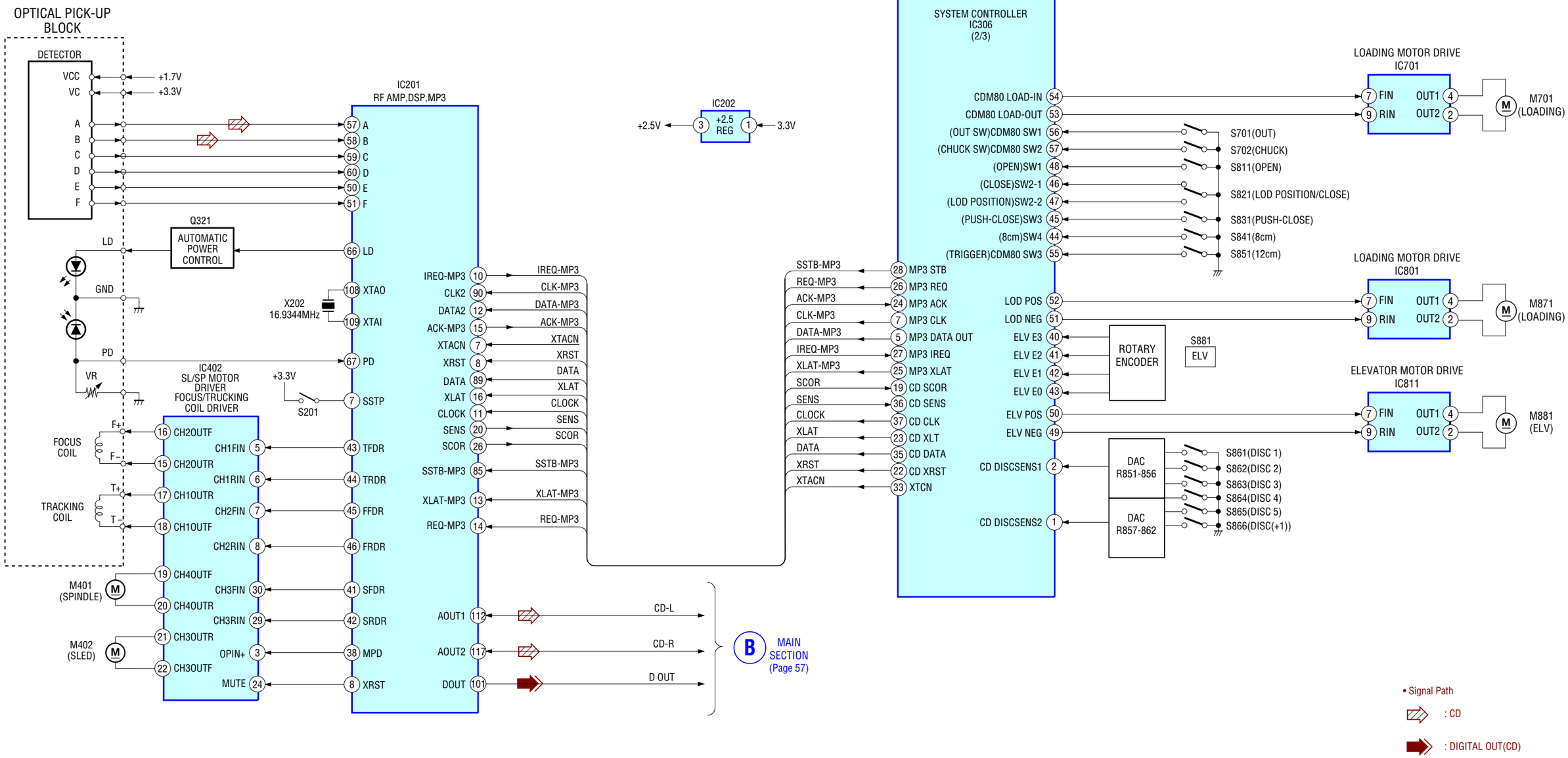


7-1. BLOCK DIAGRAM — MAIN SECTION —

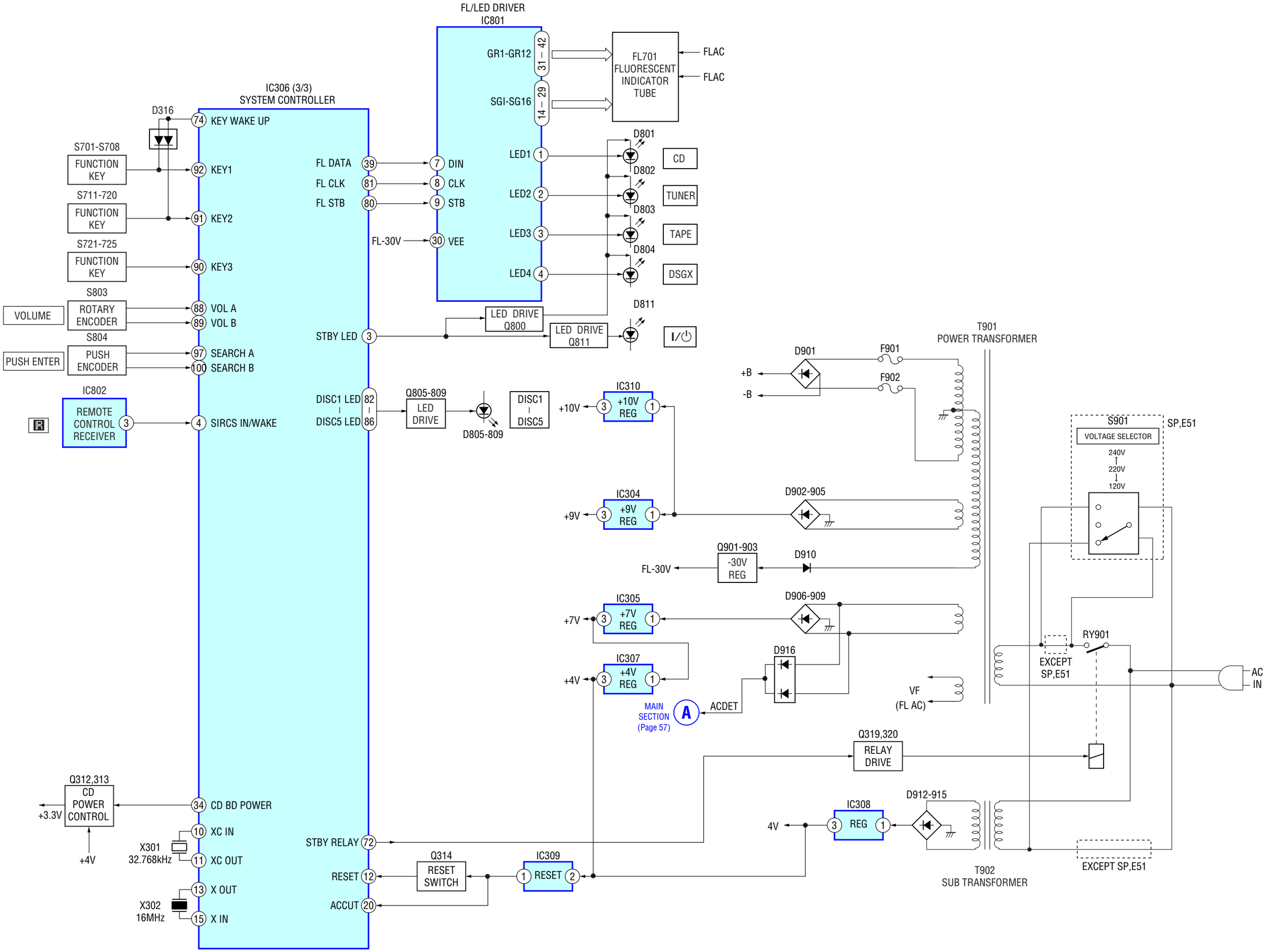


- R-CH is omitted due to same as L-CH.
- Signal Path
  - : TUNER
  - : CD
  - : PB(TAPE)
  - : REC(TAPE)
  - : AUDIO
  - : DIGITAL OUT(CD)
  - :ANALOG IN

7-2. BLOCK DIAGRAM — BD/DRIVER SECTION —



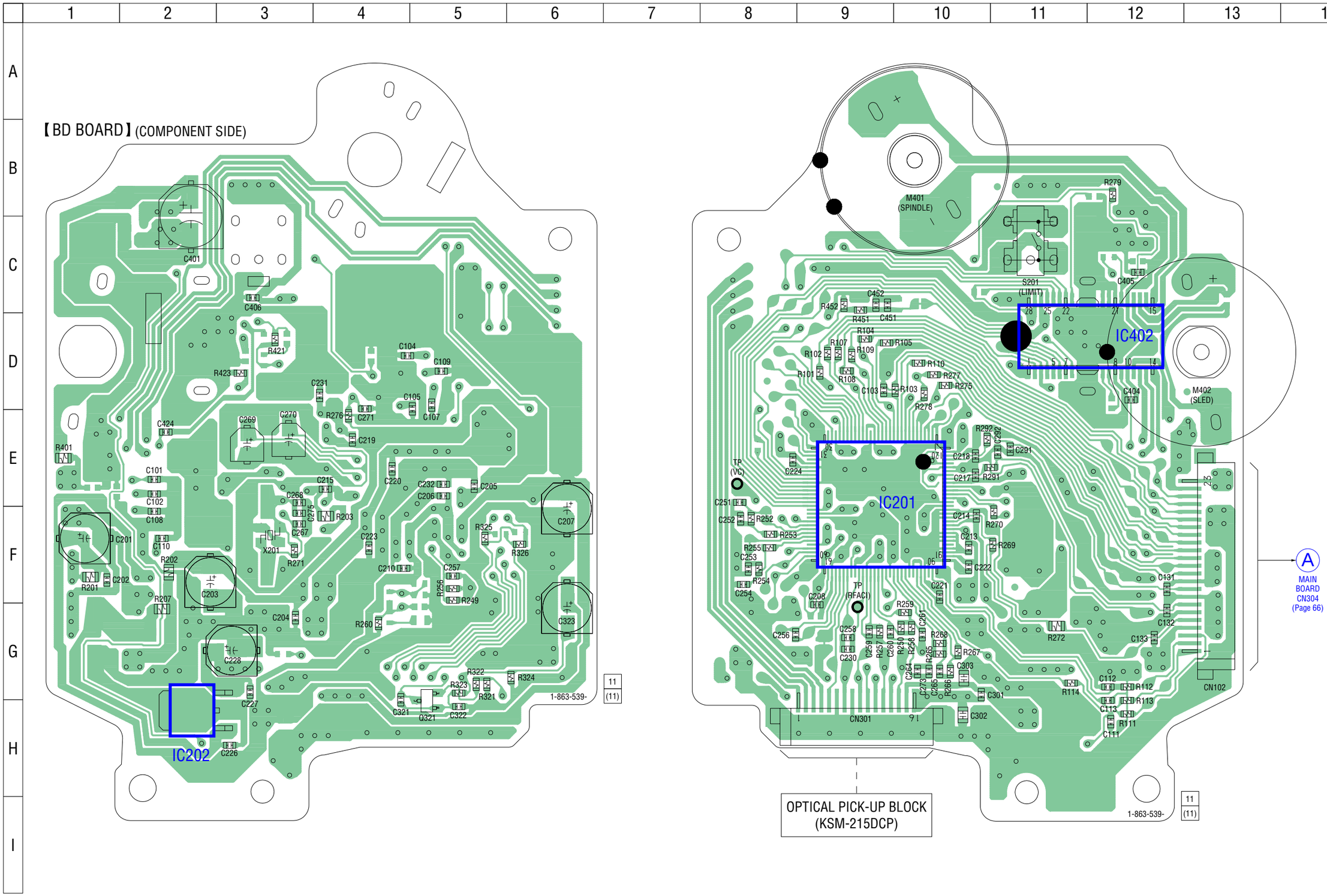
7-3. BLOCK DIAGRAM — PANEL/POWER SECTION —



7-4. PRINTED WIRING BOARD — BD BOARD —

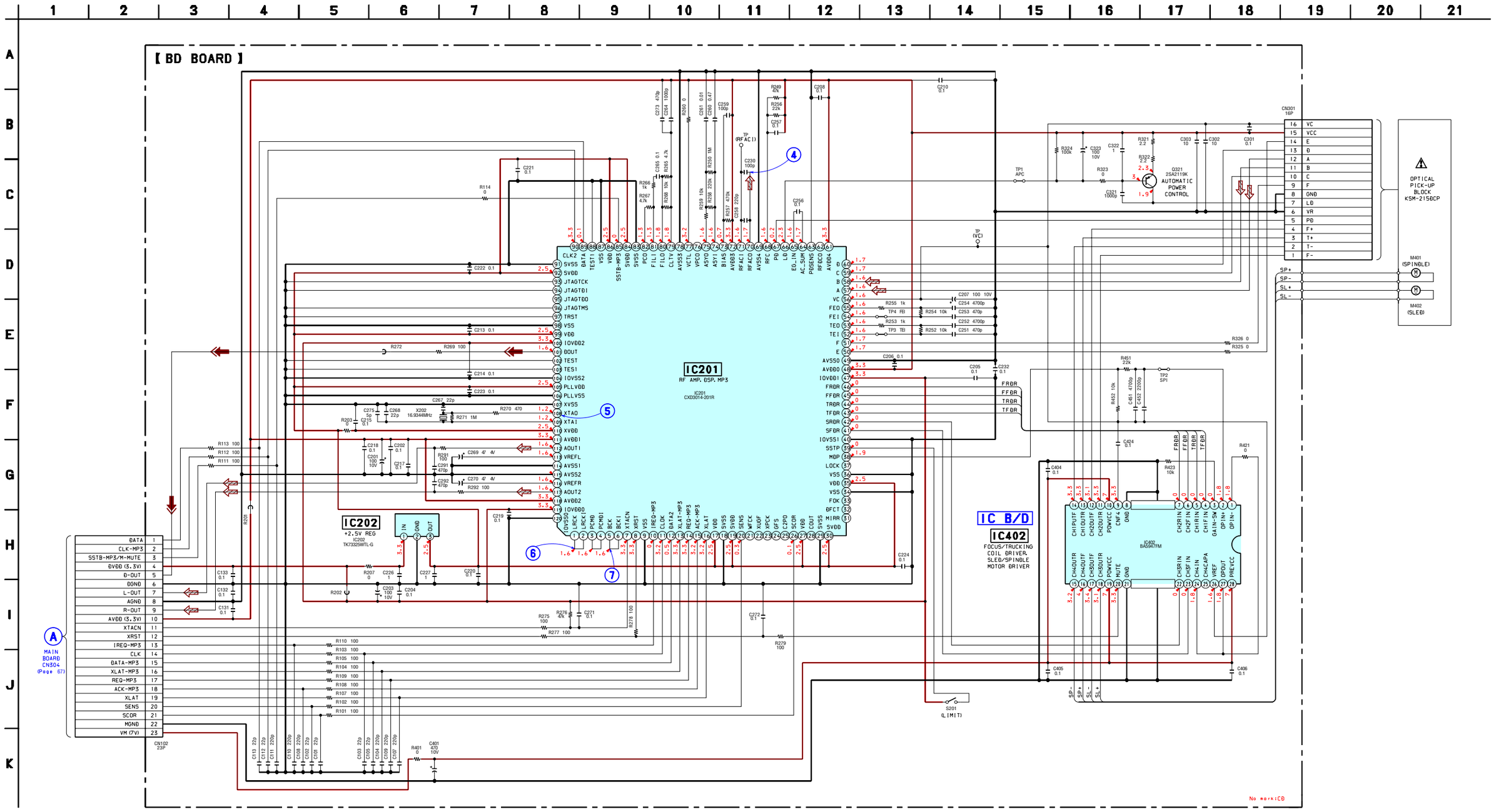
• See page 55 for Circuit Boards Location. :Uses unleaded solder.

【BD BOARD】(COMPONENT SIDE)



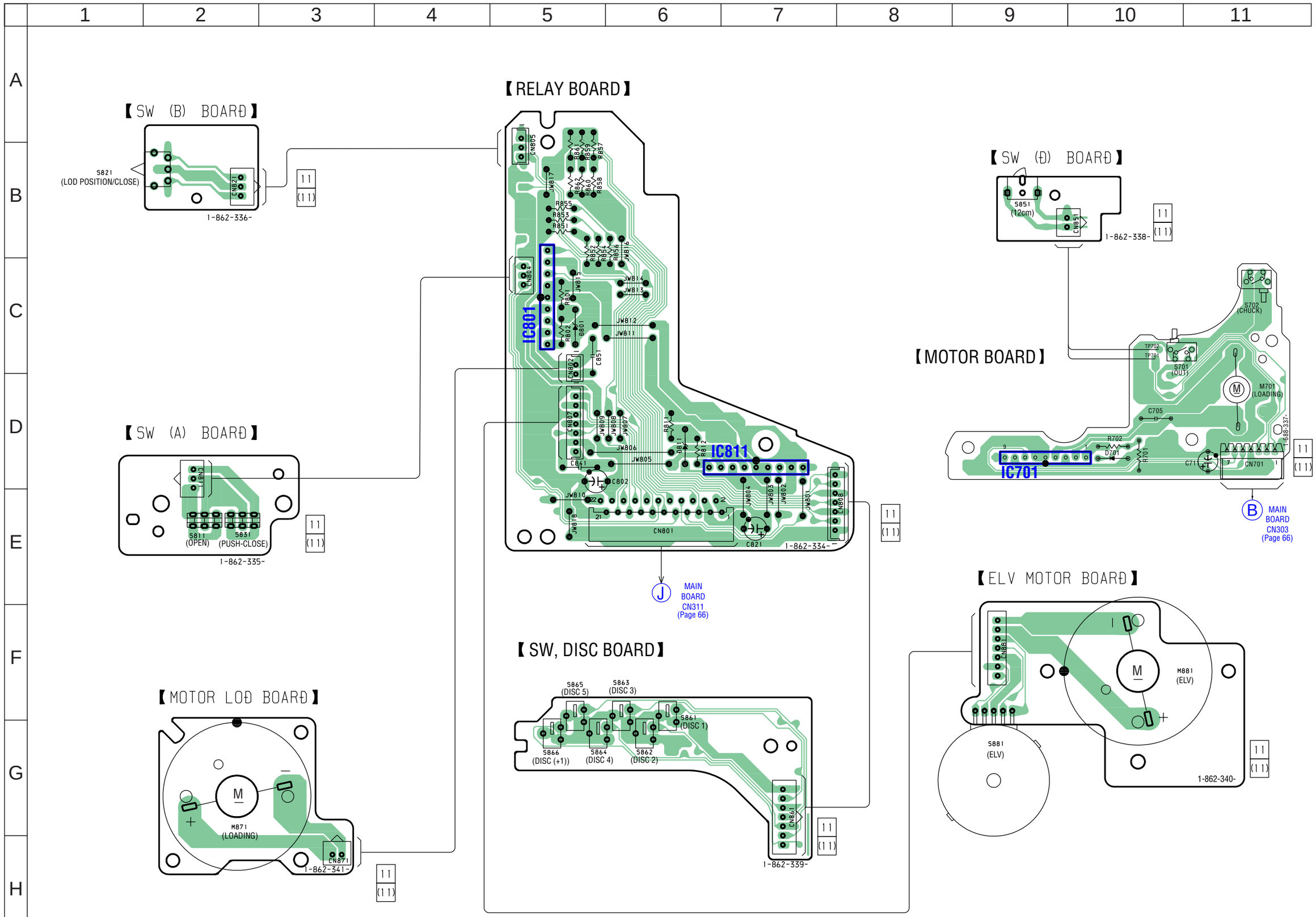
7-5. SCHEMATIC DIAGRAM — BD BOARD —

• See page 76 for IC Block Diagram. • See page 76 for Waveforms. • See page 79 for IC Pin Function Description.



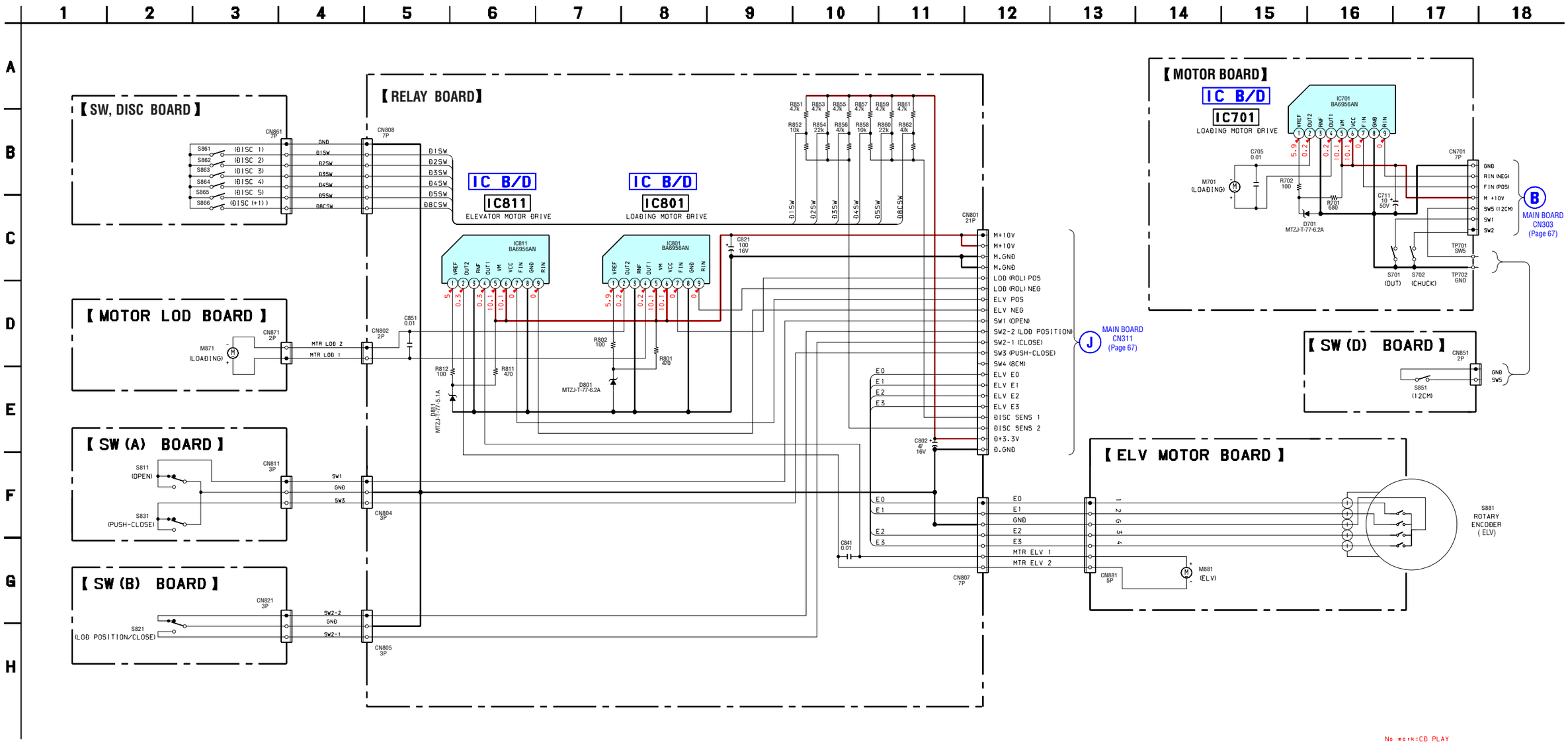
7-6. PRINTED WIRING BOARD — MOTOR SECTION —

• See page 55 for Circuit Boards Location. :Uses unleaded solder.



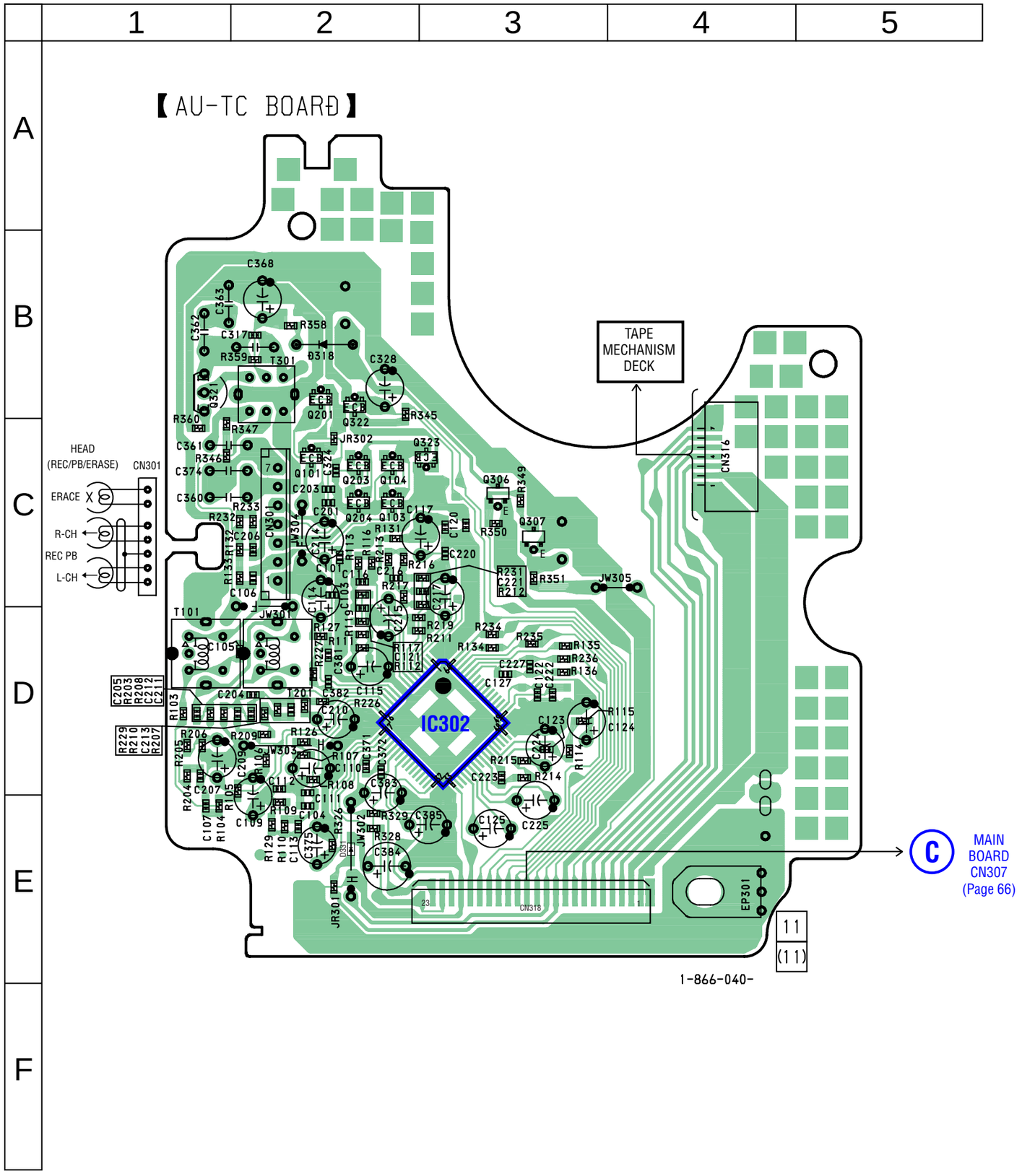
7-7. SCHEMATIC DIAGRAM — MOTOR SECTION —

• See page 77 for IC Block Diagrams.



7-8. PRINTED WIRING BOARD — AUDIO SECTION —

• See page 55 for Circuit Boards Location. :Uses unleaded solder.

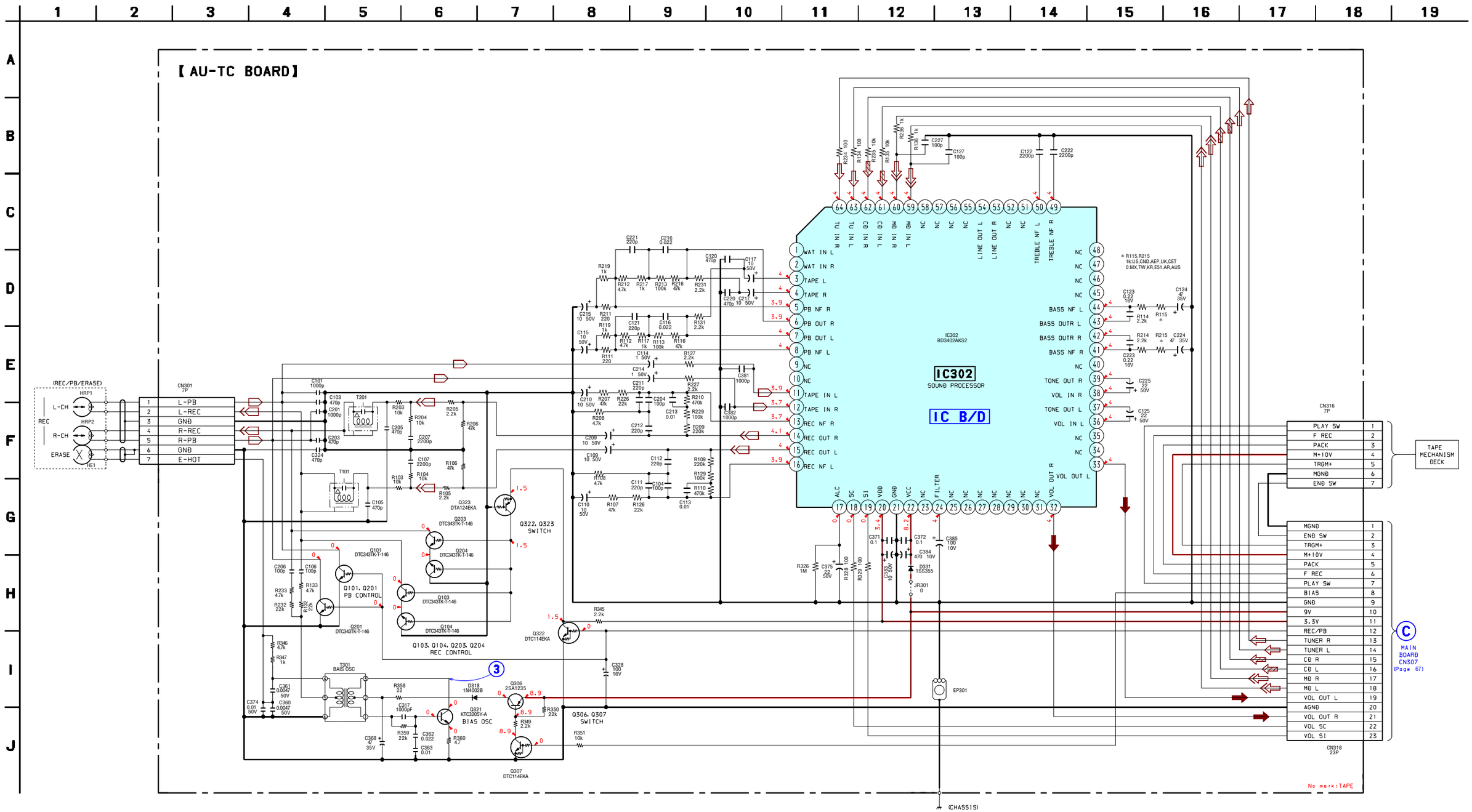


- **Semiconductor Location**

Ref. No.	Location
D318	B-2
D331	E-2
IC302	D-3
Q101	C-2
Q103	C-2
Q104	C-2
Q201	B-2
Q203	C-2
Q204	C-2
Q306	C-2
Q307	C-3
Q321	B-1
Q322	B-2
Q323	C-3

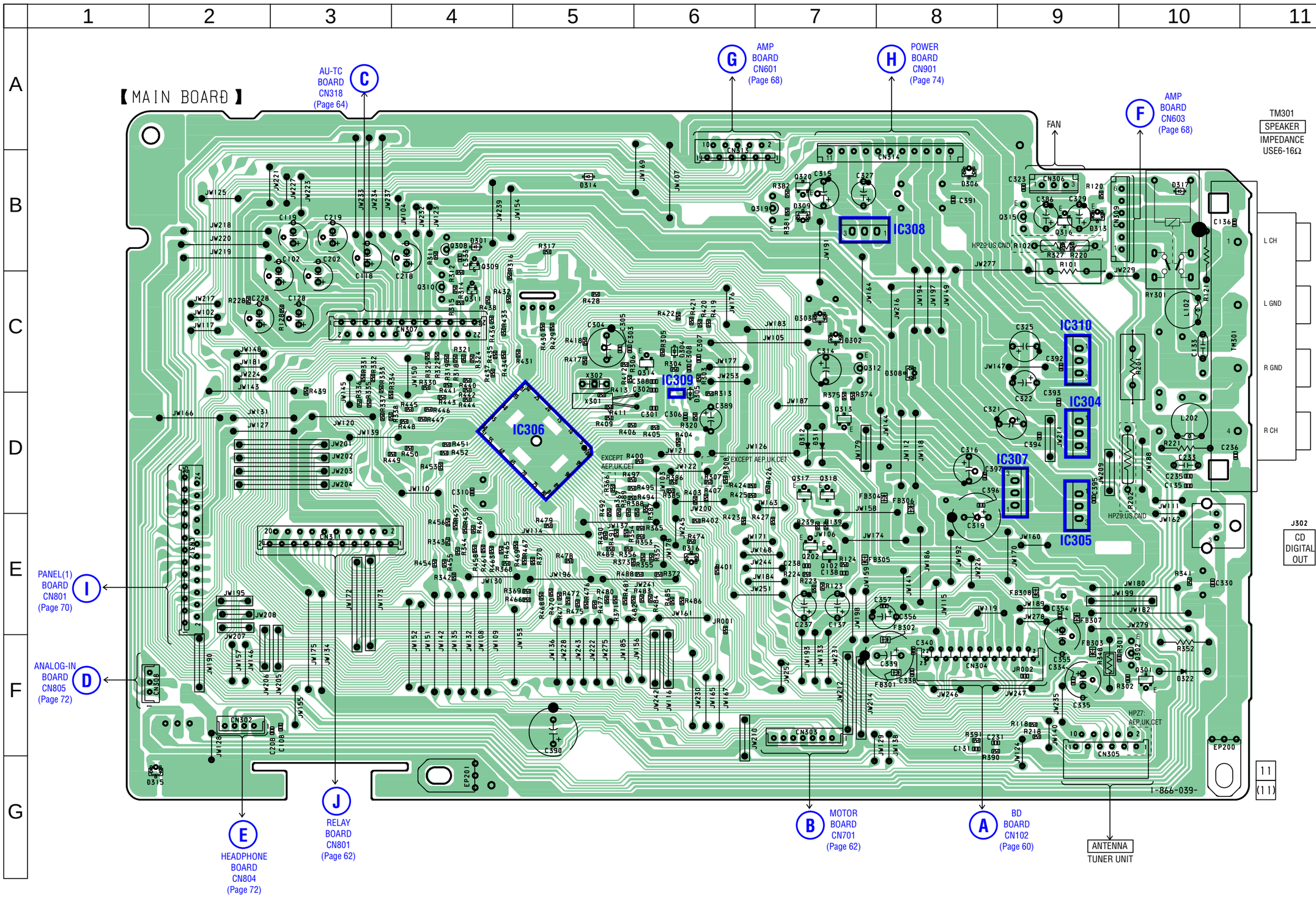
7-9. SCHEMATIC DIAGRAM — AUDIO SECTION —

• See page 77 for IC Block Diagram. • See page 76 for Waveform.



7-10. PRINTED WIRING BOARD — MAIN BOARD —

• See page 55 for Circuit Boards Location. :Uses unleaded solder.

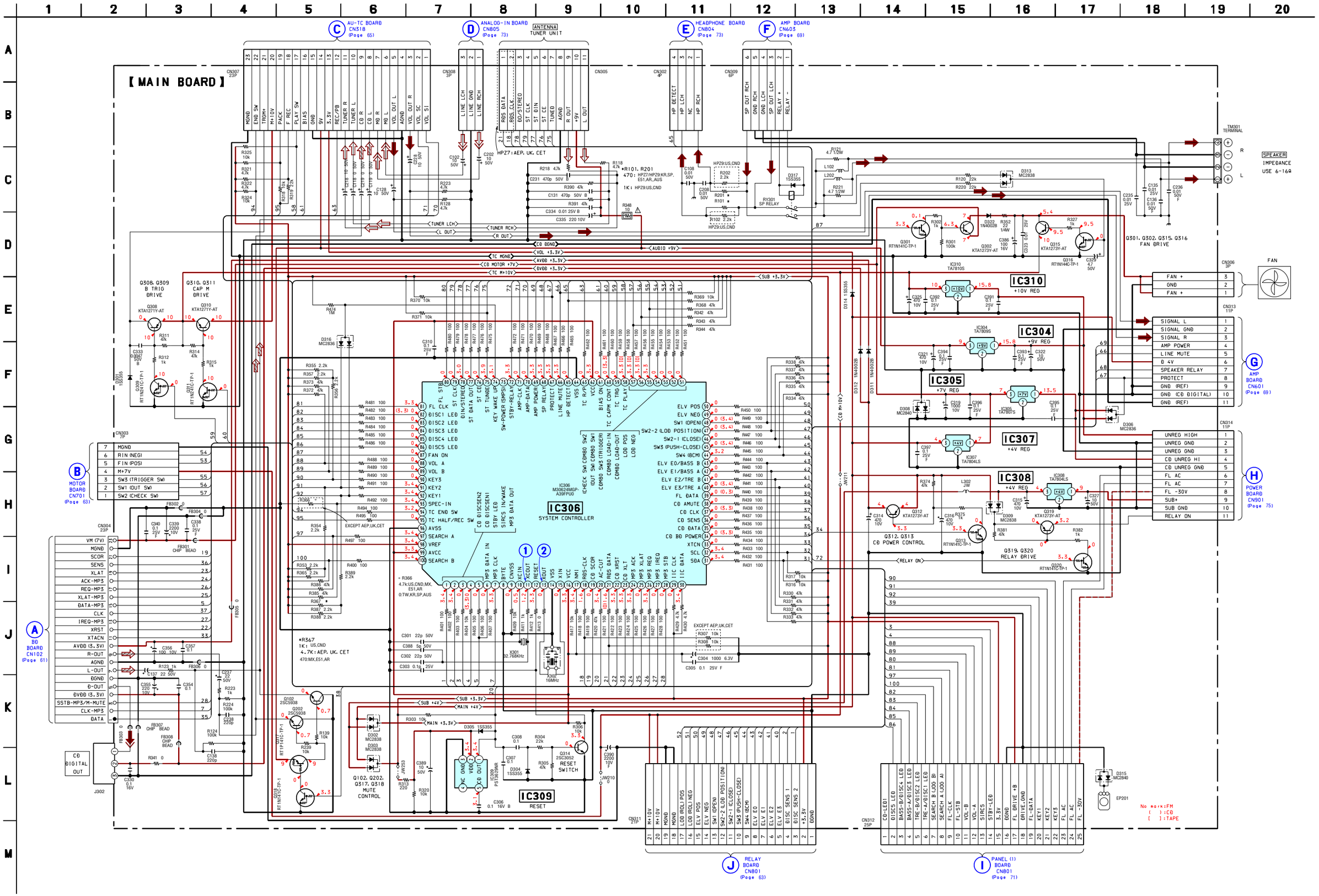


- **Semiconductor Location**

Ref. No.	Location
D301	B-4
D302	C-7
D303	C-7
D304	C-6
D305	C-6
D306	B-8
D308	C-8
D309	B-7
D311	D-7
D312	D-7
D313	B-9
D314	B-5
D316	E-6
D317	B-10
D322	F-10
IC304	C-9
IC305	D-9
IC306	D-5
IC307	D-9
IC308	B-7
IC309	D-6
IC310	C-9
Q102	E-7
Q202	E-7
Q301	F-10
Q302	F-10
Q308	B-4
Q309	B-4
Q310	C-4
Q311	C-4
Q312	C-7
Q313	C-7
Q314	C-5
Q315	B-9
Q316	B-9
Q317	D-7
Q318	D-7
Q319	B-7
Q320	B-7

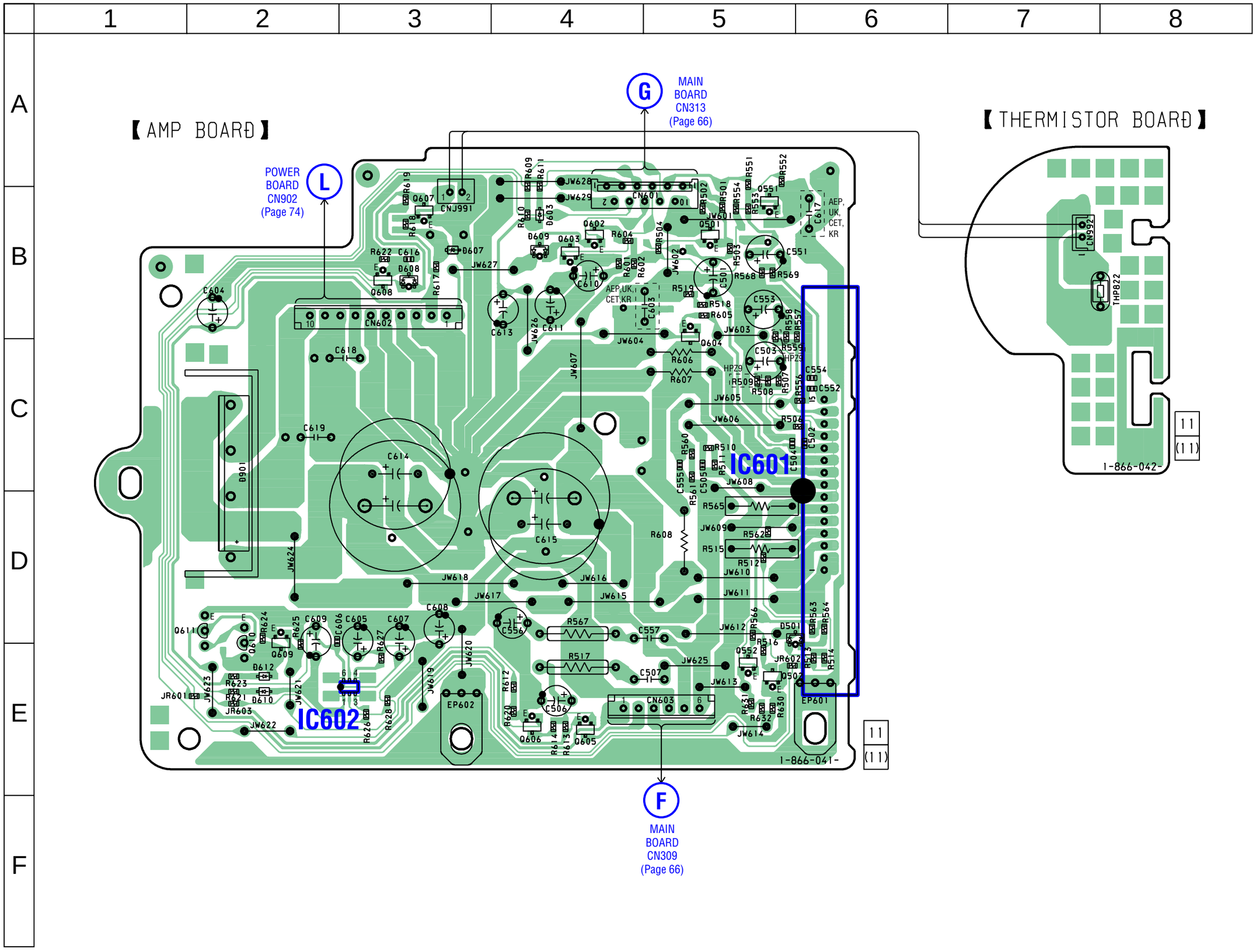
7-11. SCHEMATIC DIAGRAM — MAIN BOARD —

• See page 76 for Waveforms. • See page 82 for IC Pin Function Description.



7-12. PRINTED WIRING BOARD — AMP SECTION —

• See page 55 for Circuit Boards Location. :Uses unleaded solder.

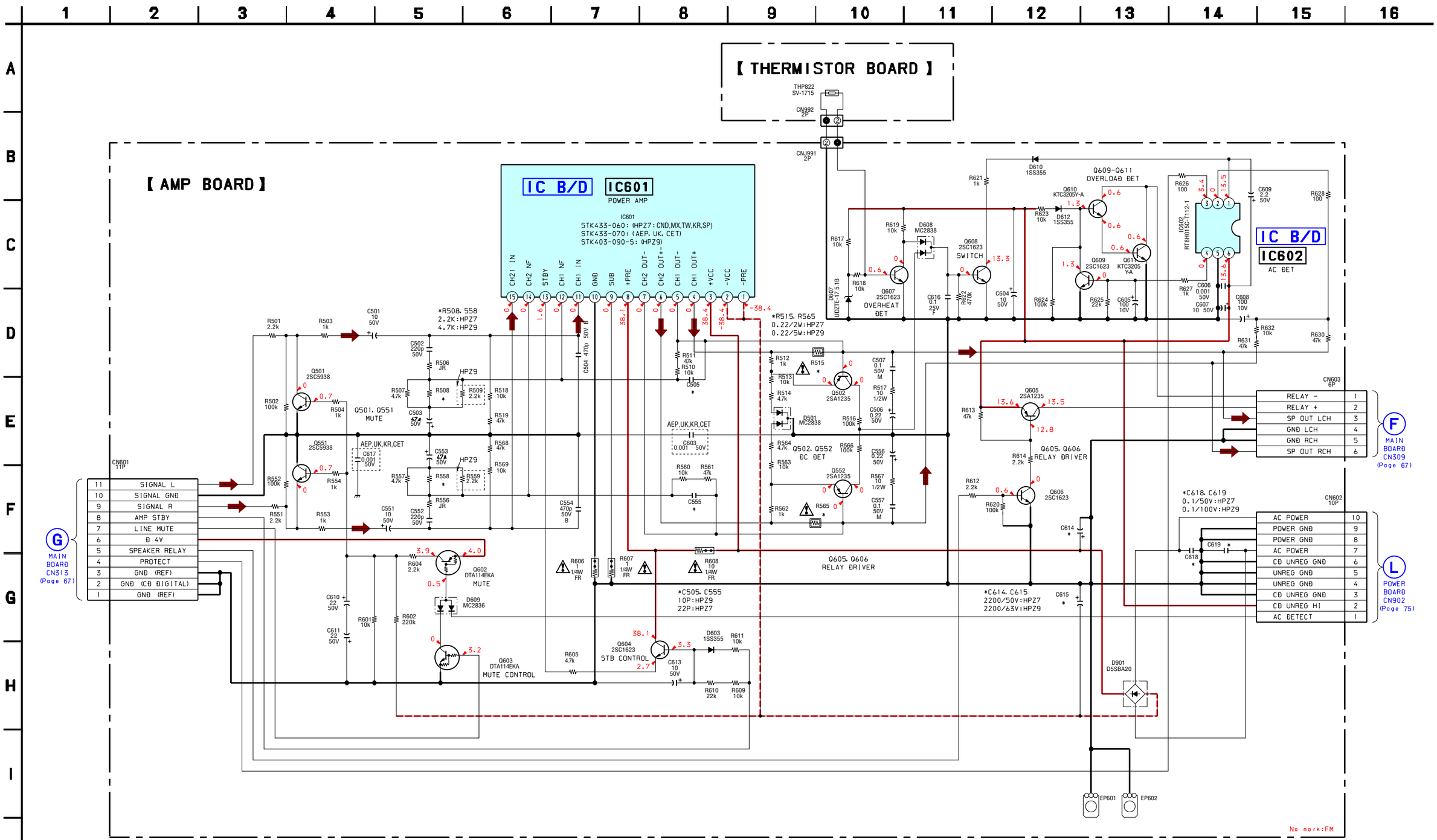


- **Semiconductor Location**

Ref. No.	Location
D501	D-5
D603	B-4
D607	B-3
D608	B-3
D609	B-3
D610	E-2
D612	E-2
D901	C-2
IC601	C-6
IC602	E-3
Q501	B-5
Q502	D-6
Q551	A-5
Q552	D-5
Q602	B-4
Q603	B-4
Q604	B-5
Q605	E-4
Q606	E-4
Q607	B-3
Q608	B-3
Q609	E-2
Q610	E-2
Q611	D-2

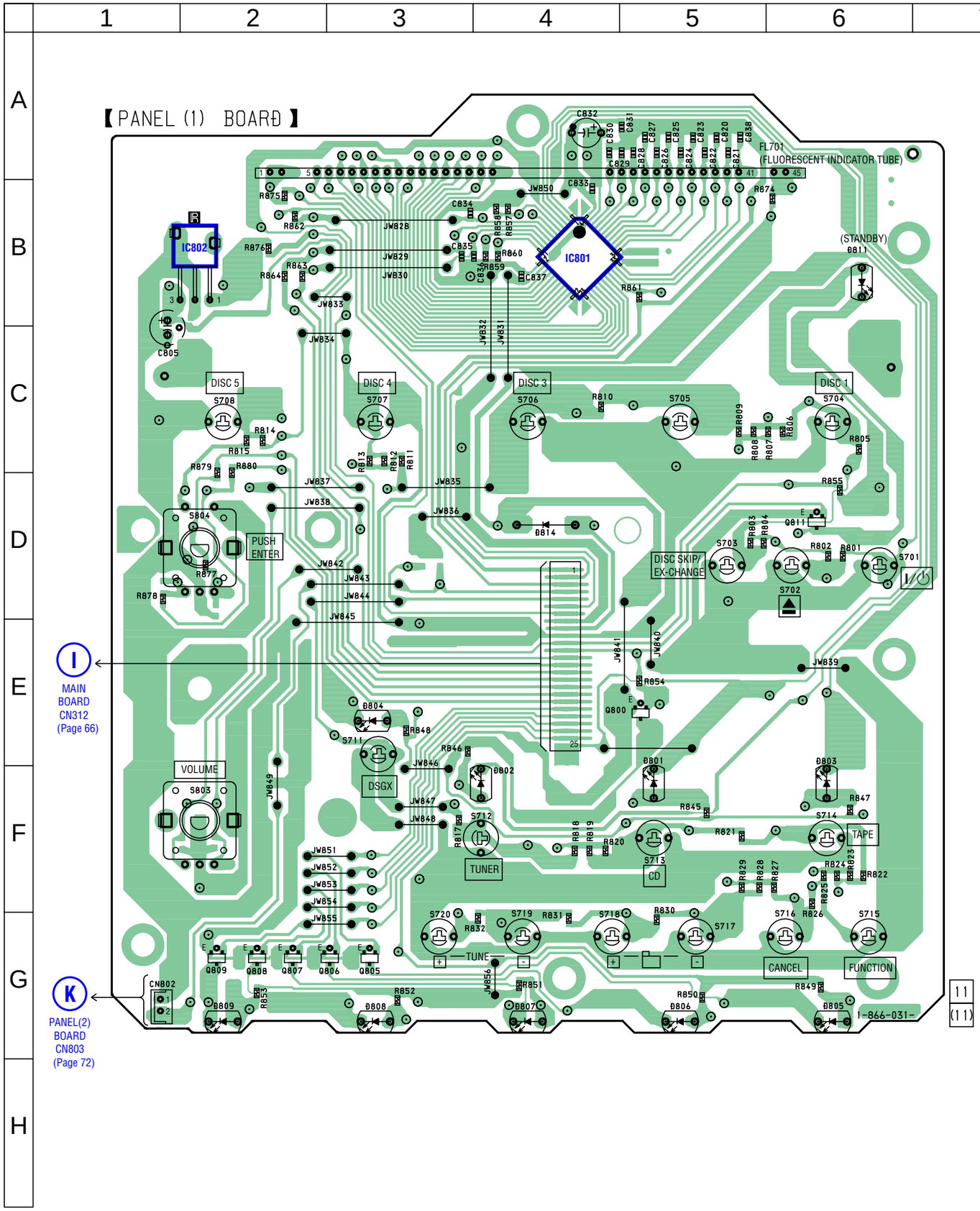
7-13. SCHEMATIC DIAGRAM — AMP SECTION —

• See page 76 for IC Block Diagrams.



7-14. PRINTED WIRING BOARD — PANEL (1) BOARD —

• See page 55 for Circuit Boards Location. :Uses unleaded solder.



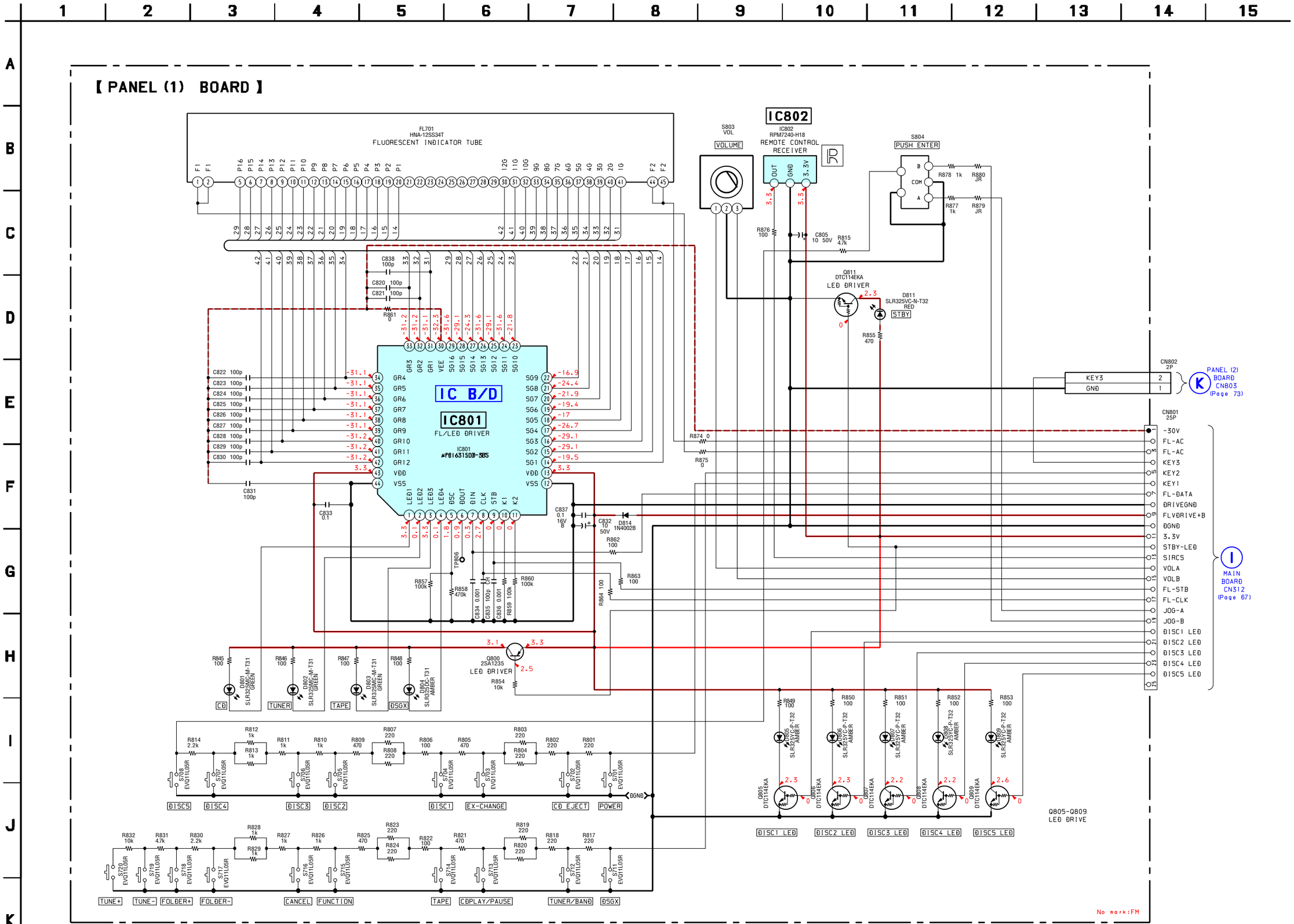
- **Semiconductor Location**

Ref. No.	Location
D801	F-5
D802	F-4
D803	F-6
D804	E-3
D805	G-6
D806	G-5
D807	G-4
D808	G-3
D809	G-2
D811	B-7
D814	D-4
IC801	B-2
IC802	B-4
Q800	E-5
Q805	G-3
Q806	G-3
Q807	G-2
Q808	G-2
Q809	G-2
Q811	D-6

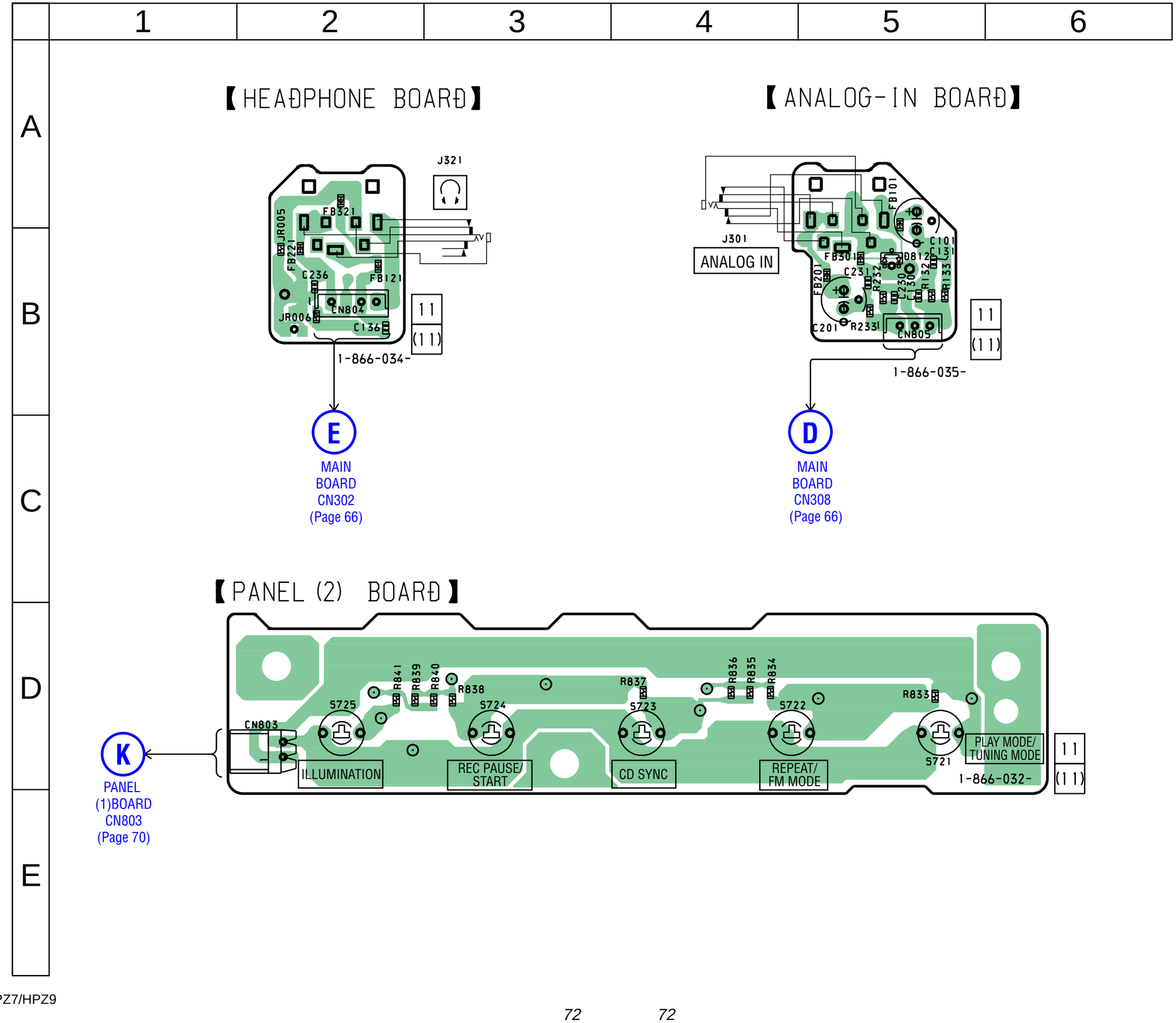
7-15. SCHEMATIC DIAGRAM — PANEL (1) BOARD —

• See page 78 for IC Block Diagram.

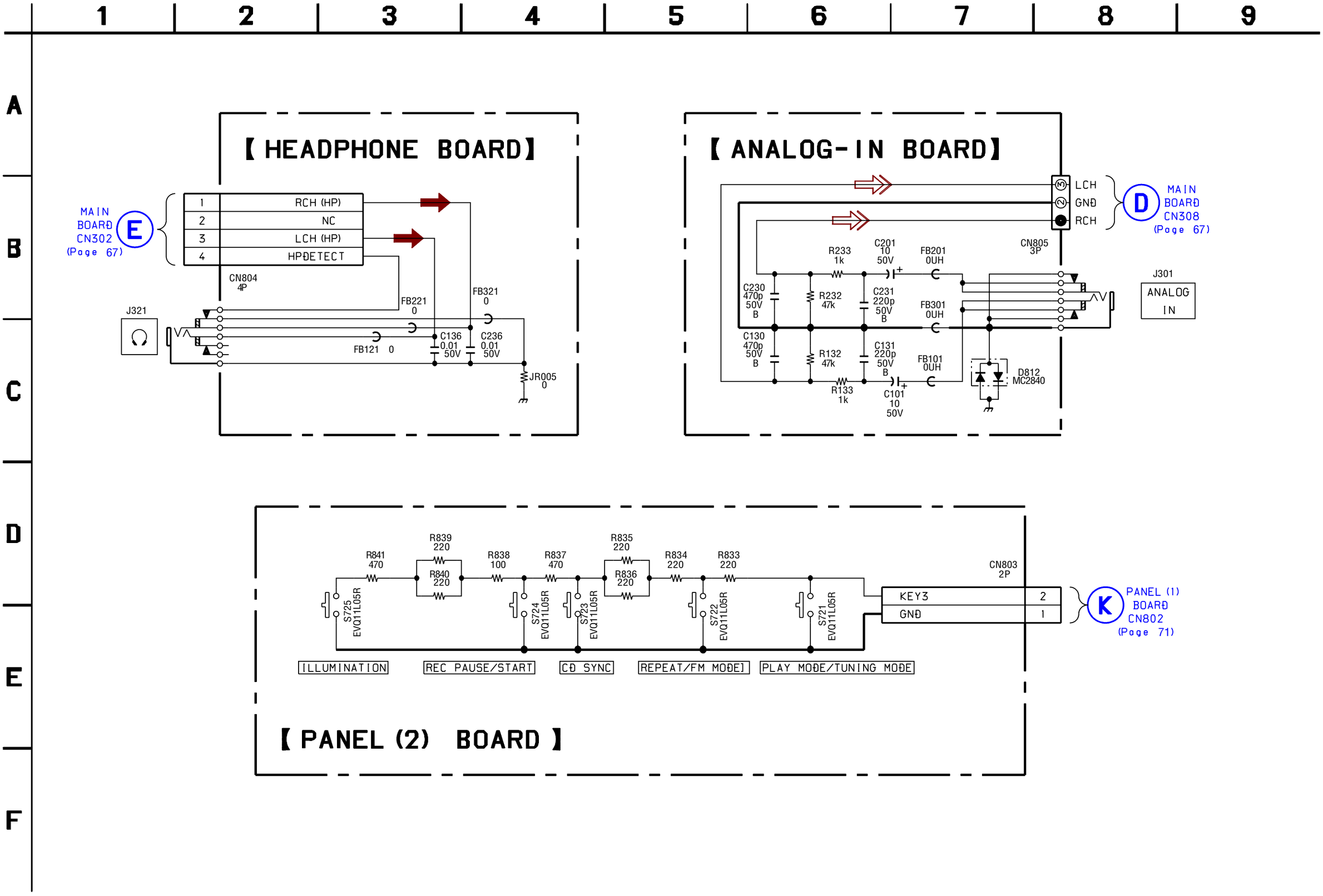
【 PANEL (1) BOARD 】



7-16. PRINTED WIRING BOARD — HEADPHONE SECTION — • See page 55 for Circuit Boards Location. :Uses unleaded solder.

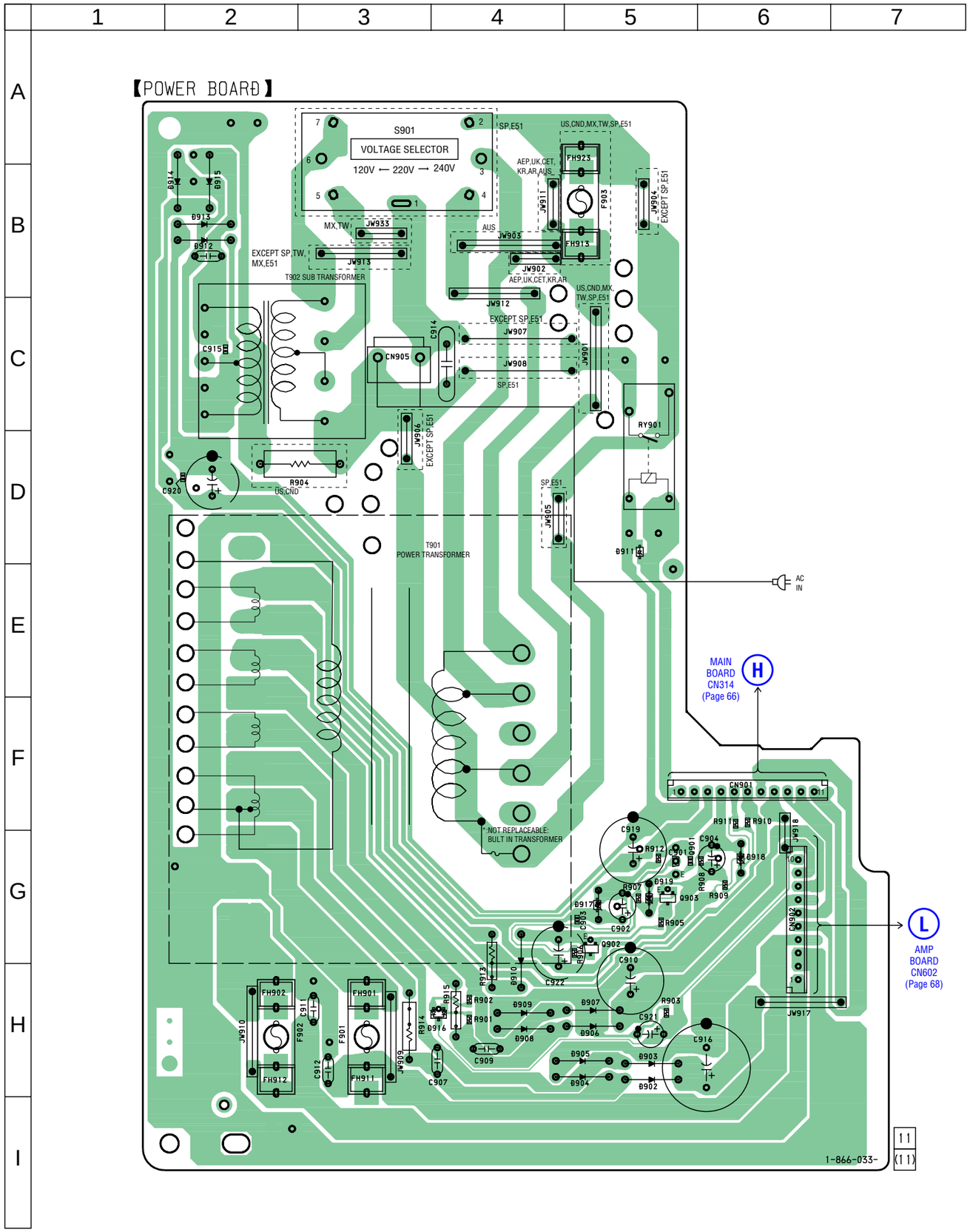


7-17. SCHEMATIC DIAGRAM — HEADPHONE SECTION —



7-18. PRINTED WIRING BOARD — POWER BOARD —

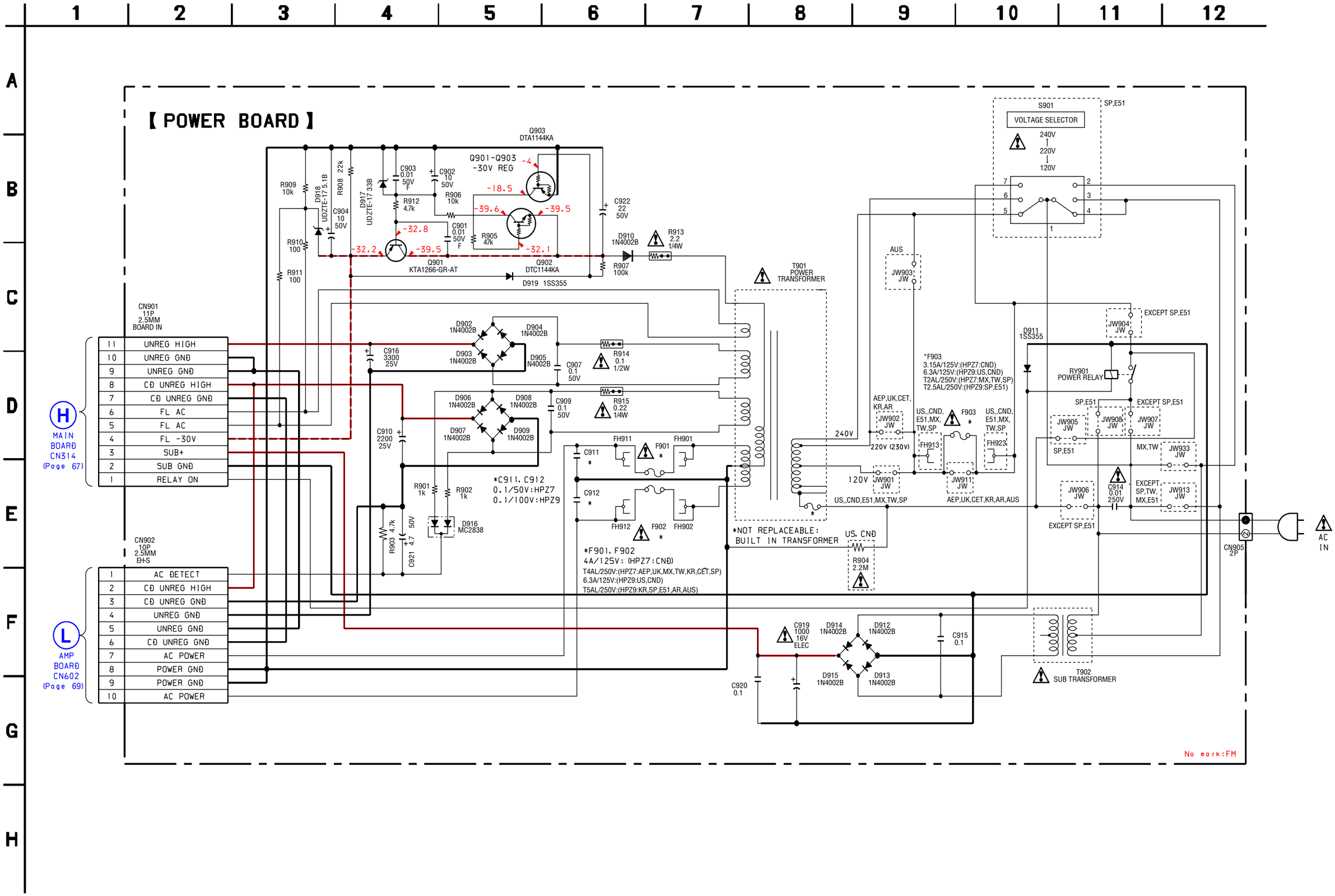
• See page 55 for Circuit Boards Location. :Uses unleaded solder.



- **Semiconductor Location**

Ref. No.	Location
D902	H-5
D903	H-5
D904	H-5
D905	H-5
D906	H-5
D907	H-5
D908	H-4
D909	H-4
D910	H-4
D911	D-5
D912	B-2
D913	B-2
D914	B-2
D915	B-2
D916	H-3
D917	G-4
D918	G-6
D919	G-5
Q901	G-5
Q902	G-5
Q903	G-5

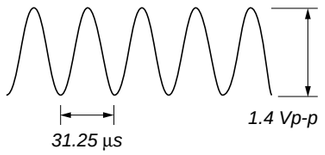
7-19. SCHEMATIC DIAGRAM — POWER BOARD —



• **Waveforms**

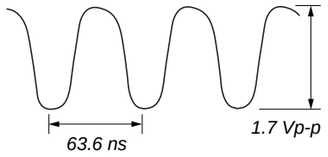
– MAIN Board –

① IC306 ⑪ (XCOUT)



50 mV/DIV, 20 µs/DIV

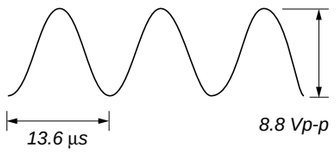
② IC306 ⑬ (XOUT)



50 mV/DIV, 20 ns/DIV

– AU-TC Board –

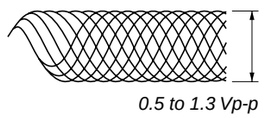
③ Q321 collector (TAPE REC mode)



5 V/DIV, 5 µs/DIV

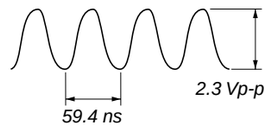
– BD Board –

④ IC201 ⑳ (RFACO) (CD PLAY mode)



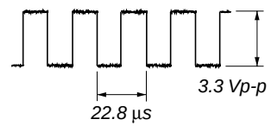
200 mV/DIV, 500 ns/DIV

⑤ IC201 ⑱ (XTAO) (CD PLAY mode)



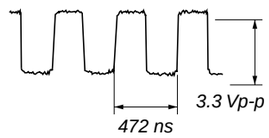
1 V/DIV, 20 ns/DIV

⑥ IC201 ① (LRCK) (CD PLAY mode)



1 V/DIV, 10 µs/DIV

⑦ IC201 ⑤ (BCK) (CD PLAY mode)

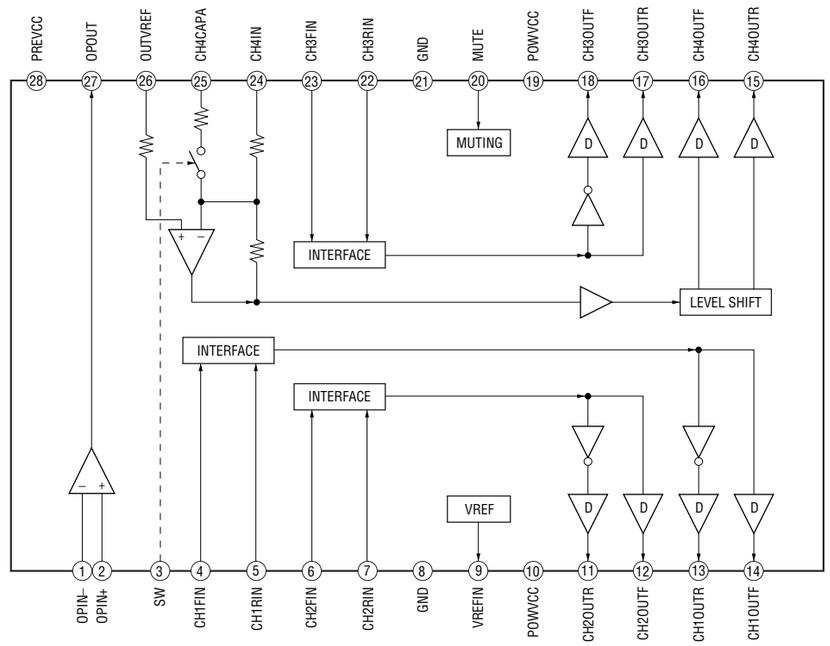


1 V/DIV, 200 ns/DIV

• **IC Block Diagrams**

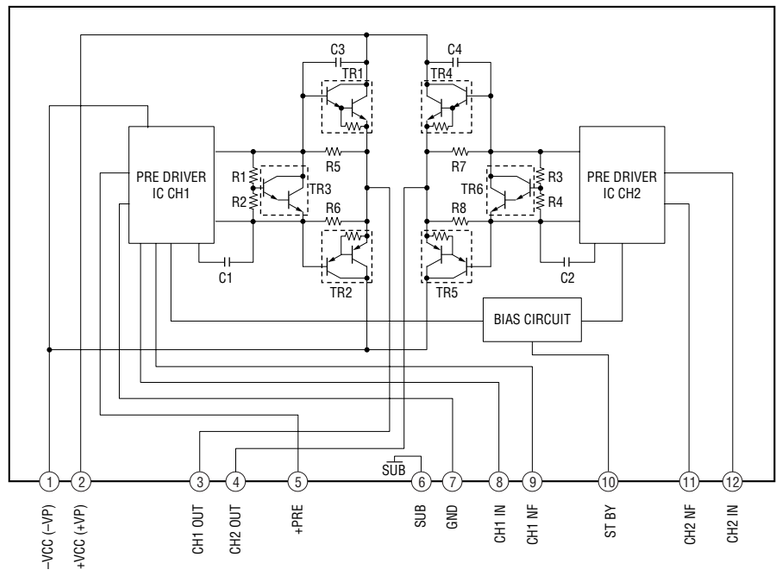
– BD Board –

IC402 BA5947FM-E2

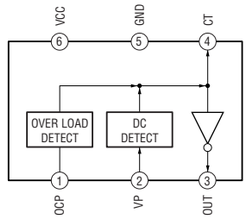


– AMP Board –

IC601 STK433-060 (HPZ7:CND)
IC601 STK433-070 (HPZ7:AEP,UK,CET)
IC601 STK403-090-S (HPZ9)

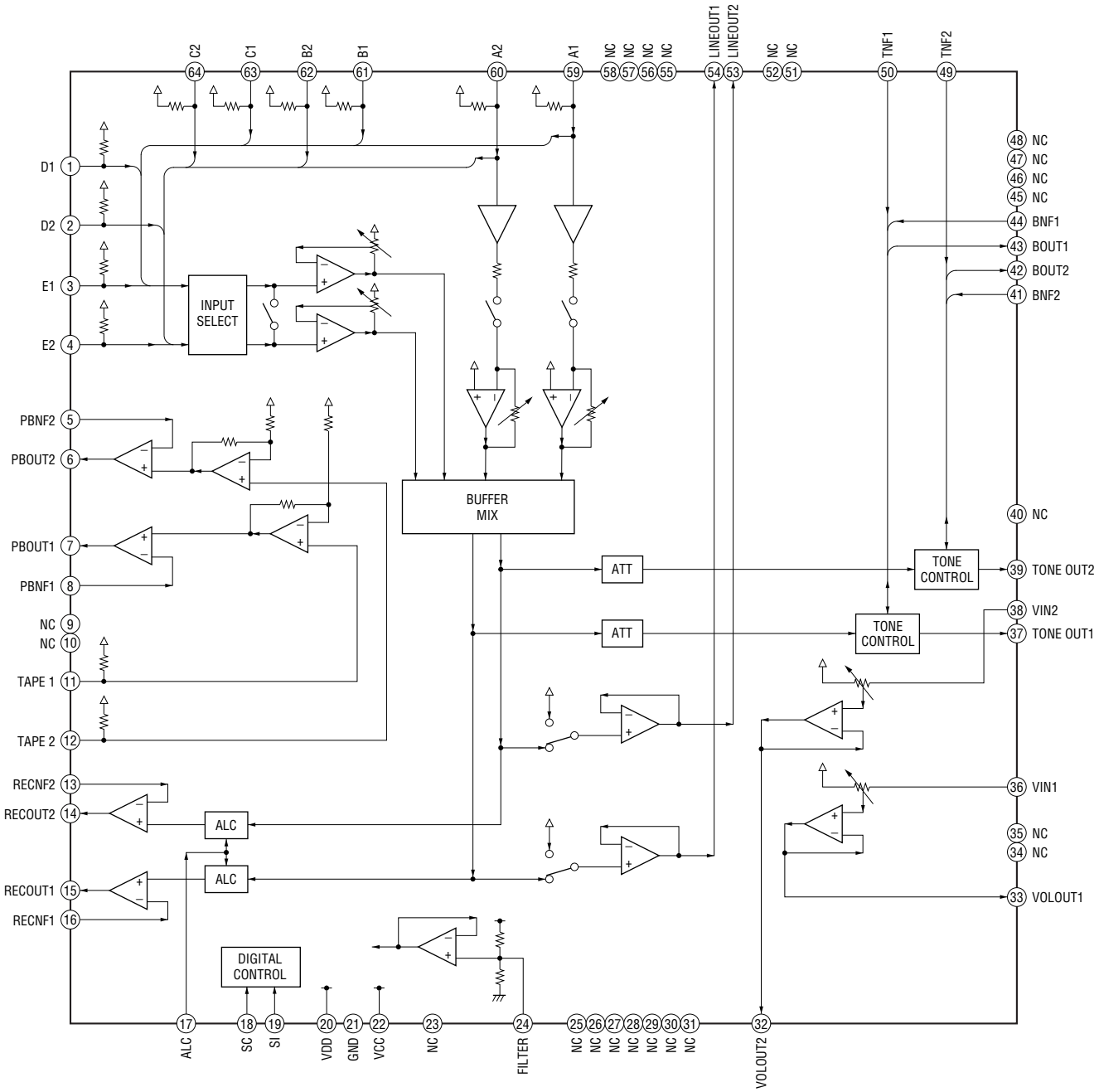


IC602 RT8H015C-T112-1



– AU-TC Board –

IC302 BD3402AKS2

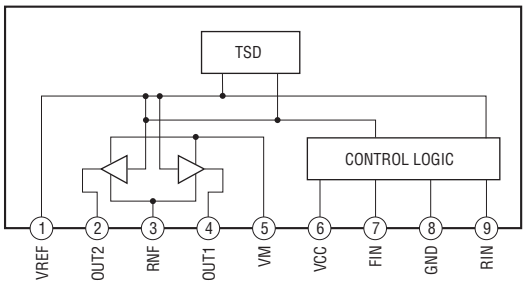


– RELAY Board –

IC801, IC811 BA6956AN

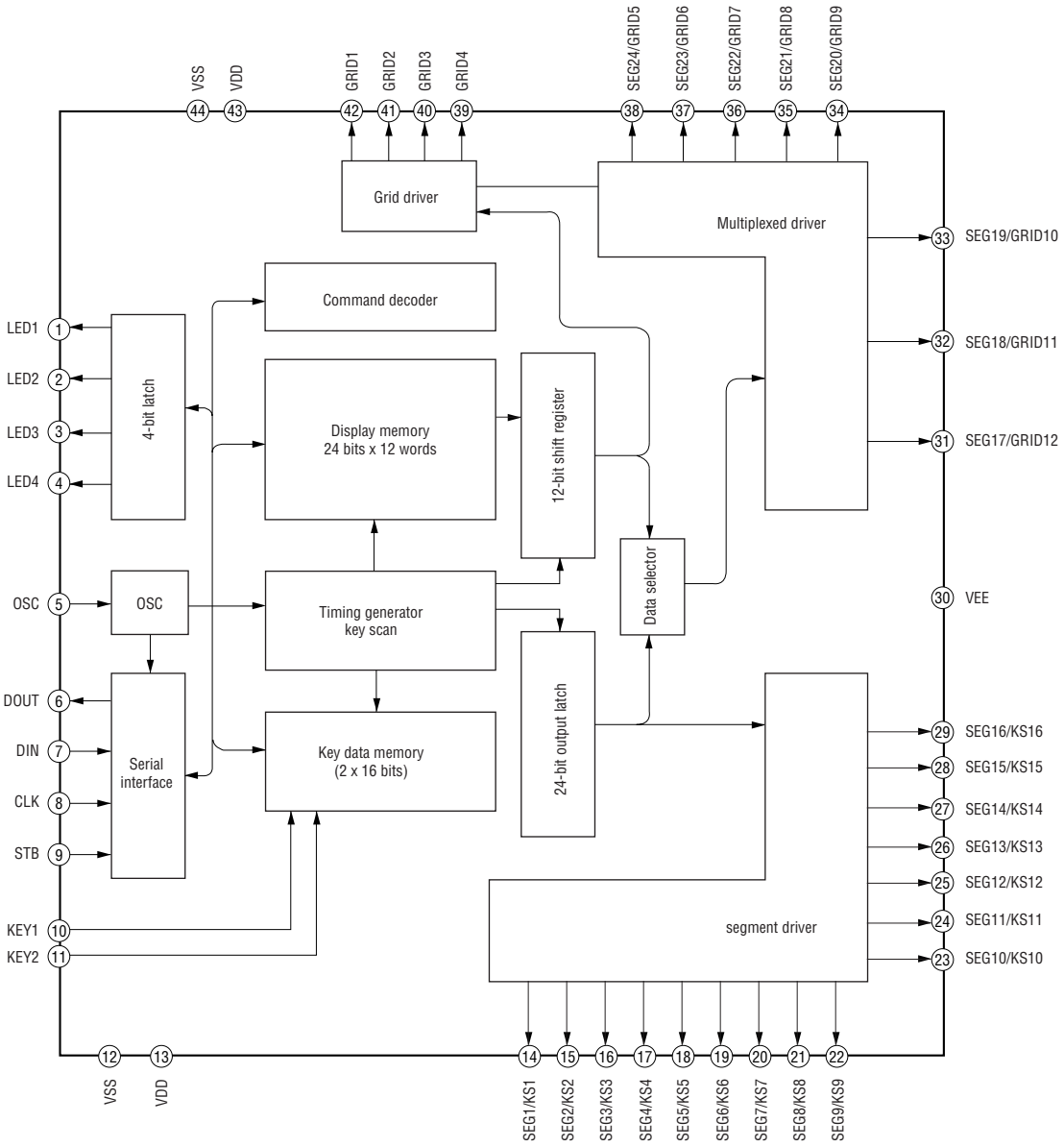
– MOTOR Board –

IC701 BA6956AN



– PANEL (1) Board –

IC801 uPD16315GB-3BS



• **IC Pin Function Description**

BD BOARD IC201 CXD3014-201R (RF AMP, DSP, MP3)

Pin No.	Pin Name	I/O	Description
1	LRCK	O	L/R sampling clock signal output
2	LRCKI	I	L/R sampling clock signal input
3	PCMD	O	PCM data output
4	PCMDI	I	PCM data input
5	BCK	O	Bit clock signal output
6	BCKI	I	Bit clock signal input
7	XTACN	I	Oscillation circuit
8	XRST	I	System reset signal input
9	VSS	—	Internal digital ground
10	IREQ-MP3	O	Data transfer request signal output to the system controller
11	CLOCK	I	Serial data transfer clock input from the system controller
12	D ATA2	I	Serial data input from the system controller
13	XLAT-MP3	I	Serial data latch pulse input from the system controller
14	REQ-MP3	I	Data transfer request signal input from the system controller
15	ACK-MP3	O	Acknowledge signal output to the system controller
16	XLAT	I	Latch input from the system controller
17	VDD	—	Power supply (+2.5V)
18	SVSS	—	Internal digital ground
19	SVDD	—	Power supply (+2.5V)
20	SENS	O	SENS output to the system controller
21	WFCK	O	WFCK output (Not used)
22	XUGF	O	XUGF output (Not used)
23	XPCK	O	XPCK output (Not used)
24	GFS	O	GFS output (Not used)
25	C2PO	O	C2PO output (Not used)
26	SCOR	O	High output when the subcode sync, S0 or S1, is detected
27	VDD	—	Power supply (+2.5V)
28	COUT	I/O	Track number count signal input/output (Not used)
29	SVSS	—	Internal digital ground
30	SVDD	—	Power supply (+2.5V)
31	MIRR	I/O	Mirror signal input/output (Not used)
32	DFCT	I/O	Defect signal input/output (Not used)
33	FOK	I/O	Focus OK signal input/output (Not used)
34	VSS	—	Internal digital ground
35	VDD	—	Power supply (+2.5V)
36	VSS	—	Internal digital ground
37	LOCK	I/O	GFS is sampled at 460Hz; when GFS is high , this pin outputs a high signal If GFS is low eight consecutive (Not used)
38	MDP	O	Spindle motor servo control output
39	SSTP	I	Disk innermost detection signal input
40	IOVSS1	—	Internal digital ground
41	SFDR	O	Sled drive output
42	SRDR	O	Sled drive output
43	TFDR	O	Tracking drive output
44	TRDR	O	Tracking drive output
45	FFDR	O	Focus drive output
46	FRDR	O	Focus drive output

Pin No.	Pin Name	I/O	Description
47	IOVDD1	—	I/O digital power supply (+3.3V)
48	AVDD0	—	Analog power supply (+3.3V)
49	AVSS0	—	Analog ground
50	E	I	E signal input
51	F	I	F signal input
52	TEI	I	Tracking error signal input to DSSP block
53	TEO	O	Tracking error signal output from RF amplifier block
54	FEI	I	Focus error signal input to DSSP block
55	FEO	O	Focus error signal output from RF amplifier block
56	VC	O	Center voltage output
57	A	I	A signal input
58	B	I	B signal input
59	C	I	C signal input
60	D	I	D signal input
61	AVDD4	—	Analog power supply (+3.3V)
62	RFDCO	O	RFDC signal output (Not used)
63	PDSENS	I	Reference voltage pin for PD (Analog ground)
64	AC_SUM	O	RFAC summing amplifier output
65	EQ_IN	I	Equalizer circuit input
66	LD	O	APC amplifier output
67	PD	I	APC amplifier input
68	RFC	I	Equalizer cut-off frequency adjustment pin
69	AVSS4	—	Analog ground
70	RFACO	O	RFAC signal output
71	RFACI	I	RFAC signal input or EFM signal input
72	AVDD3	—	Analog power supply (+3.3V)
73	BIAS	I	Asymmetry circuit constant current input
74	ASYI	I	Asymmetry comparator voltage input
75	ASYO	O	EFM full-swing output (Low = VSS, High = VDD)
76	VPCO	O	Wide-band EFM PLL charge pump output
77	VCTL	I	Wide-band EFM PLL VCO2 control voltage input
78	AVSS3	—	Analog ground
79	CLTV	I	Multiplier VCO1 control voltage input
80	FILO	O	Master PLL (slave = digital PLL) filter output
81	FILI	I	Master PLL filter input
82	PCO	O	Master PLL charge pump output
83	SVSS	—	Internal digital ground
84	SVDD	—	Power supply (+2.5V)
85	SSTB-MP3	I	Standby signal input from the system controller
86	VDD	—	Power supply (+2.5V)
87	VSS	—	Internal digital ground
88	TEST1	I	Test pin Normally ground
89	DATA	I	Serial data input from the system controller
90	CLK2	I	Serial clock input from the system controller
91	SVSS	—	Internal digital ground
92	SVDD	—	Power supply (+2.5V)
93	JTAGTOK	—	Internal digital ground
94	JTAGTDI	—	Internal digital ground
95	JTAGTDO	—	Not used

Pin No.	Pin Name	I/O	Description
96	JTAGTMS	—	Internal digital ground
97	TRST	—	Internal digital ground
98	VSS	—	Internal digital ground
99	VDD	—	Power supply (+2.5V)
100	IOVDD2	—	I/O digital power supply (+3.3V)
101	DOUT	O	Digital out output
102	TEST	I	Test pin Normally ground
103	TES1	I	Test pin Normally ground
104	IOVSS2	—	Internal digital ground
105	PLLVDD	—	Power supply (+2.5V)
106	PLLVSS	—	Internal digital ground
107	XVSS	—	Internal digital ground
108	XTAO	O	Crystal oscillation circuit output
109	XTAI	I	Crystal oscillation circuit input
110	XVDD	—	Master clock power supply (+2.5V)
111	AVDD1	—	Analog power supply (+3.3V)
112	AOUT1	O	Lch analog output
113	VREFL	O	Lch reference voltage
114	AVSS1	—	Analog ground
115	AVSS2	—	Analog ground
116	VREFR	O	Rch reference voltage
117	AOUT2	O	Rch analog output
118	AVDD2	—	Analog power supply (+3.3V)
119	IOVDD0	—	I/O digital power supply (+3.3V)
120	IOVSS0	—	Internal digital ground

MAIN BOARD IC306 M30624MGP-A39FPU0 (SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Description
1	CD DISCSENS 2	I	DISC 4, 5 and DISC (+1) detect signal input
2	CD DISCSENS 1	I	DISC 1 to 3 detect signal input
3	STBY LED	O	LED drive signal output terminal (power)
4	SIRCS IN/WAKE	I	SIRCS signal input terminal
5	MP3 DATA OUT	O	Serial data output to the MP3 decoder
6	MP3 DATA IN	I	Serial data input from the MP3 decoder
7	MP3 CLK	O	Serial data transfer clock signal output to the MP3 decoder
8	BYTE	I	External data bus width select signal input terminal (fixed "L")
9	CNVSS	—	Ground terminal
10	XCIN	I	Sub system clock input terminal (32.768 kHz)
11	XCOUT	O	Sub system clock output terminal (32.768 kHz)
12	RESET	I	System reset signal input terminal "L": reset For several hundreds msec. after the power supply rises, "L" is input, then it changes to "H"
13	XOUT	O	Main system clock output terminal (16 MHz)
14	VSS	—	Ground terminal
15	XIN	I	Main system clock input terminal (16 MHz)
16	VCC	—	Power supply terminal (+3.3V)
17	NMI	I	Non-maskable interrupt signal input terminal (Not used)
18	RDS-CLK	I	RDS serial data transfer clock signal input terminal (only for AEP, UK, CET models)
19	CD SCOR	I	Subcode Q data request signal input terminal
20	AC-CUT	I	Power down detection signal input terminal "L": power down
21	RDS DATA	I	RDS serial data input terminal (only for AEP, UK, CET models)
22	CD XRST	O	System reset signal output to the RF AMP
23	CD XLT	O	Latch pulse signal output to the RF AMP
24	MP3 ACK	I	Acknowledge signal input from the MP3 decoder
25	MP3 XLAT	O	Serial data latch pulse output to the MP3 decoder
26	MP3 REQ	O	Data transfer request signal output to the MP3 decoder
27	MP3 IREQ	I	Data transfer request signal input from the MP3 decoder
28	MP3 STB	O	Standby signal output to the MP3 decoder
29	IIC CLK	I/O	IIC data transfer clock signal input and output (Not used)
30	IIC DATA	I/O	IIC two-way data bus (Not used)
31	SDA	O	SDA signal output
32	SCL	O	SCL signal output
33	XTCN	O	Oscillator control signal output to the CD DSP
34	CD BD POWER	O	Power on/off control signal output for CD block
35	CD DATA	O	Serial data output to the CD DSP
36	CD SENS	I	Internal status (SENSE) input from the CD DSP
37	CD CLK	O	Serial data transfer clock signal output to the CD DSP
38	CD AMUTE	O	CD muting on/off control signal output terminal
39	FL DATA	O	Serial output to the FL/LED driver
40	ELV E3/TRE A	I	ELV pulse input from the rotary encoder
41	ELV E2/TRE B	I	ELV dial pulse input from the rotary encoder
42	ELV E1/BASS A	I	ELV dial pulse input from the rotary encoder
43	ELV E0/BASS B	I	ELV dial pulse input from the rotary encoder
44	SW4 (8CM)	I	CD disc size detection (8cm) signal input terminal
45	SW3 (PUSH-CLOSE)	I	CD push-close switch input terminal
46	SW2-1 (CLOSE)	I	CD close switch input terminal
47	SW2-2 (LOD POSITION)	I	CD loading position switch input terminal
48	SW1 (OPEN)	I	CD open switch input terminal

Pin No.	Pin Name	I/O	Description
49	ELV NEG	O	Elevator up/down motor control signal output
50	ELV POS	O	Elevator up/down motor control signal output
51	LOD NEG	O	Loading motor control signal output
52	LOD POS	O	Loading motor control signal output
53	CDM80 LOAD-OUT	O	Loading motor control signal output (loading out direction)
54	CDM80 LOAD-IN	O	Loading motor control signal output (loading in direction)
55	(TRIGGER) CDM80 SW3	I	12cm DISC switch "L": switch on
56	(OUT SW) CDM80 SW1	I	Out switch input terminal "L": switch on
57	(CHUCK SW) CDM80 SW2	I	Chuck switch input terminal "L": switch on
58	TC PLAY	I	Tape play switch input terminal
59	TC TRG	O	Plunger driver signal output terminal "L": plunger on
60	TC CAPM CONT	O	Capstan/reel motor drive signal output terminal "L": forward, "H": reverse
61	BIAS ON	O	REC bias on/off control signal output terminal "H": REC bias on
62	VCC	—	Power supply terminal (+3.3V)
63	TC R/P	O	PB/REC switching control signal output terminal "L": PB
64	VSS	—	Ground terminal
65	HP DETECT	I	Headphone detection signal input
66	LINE MUTE	O	Line muting on/off control signal output terminal "H": muting on
67	PROTECT	I	Protect signal input from the amplifier circuit "L": protect
68	SP RELAY	O	Speaker on/off relay drive signal output terminal "L": speaker off
69	AMP POWER	O	AMP muting on/off control signal output terminal "H": AMP on
70	AMP DATA	O	Serial data output to the sound processor
71	AMP CLK	O	Serial data transfer clock signal output to the sound processor
72	STBY-RELAY	O	Relay drive signal output for main power supply "H": power on
73	SW-POWER	O	Sub power block on/off control signal output terminal (Not used)
74	KEY WAKE UP	I	System wake up signal input terminal in the standby status
75	ST TUNED	I	Tuning detection signal input from the tuner unit "L": tuned
76	ST CE	O	Chip enable signal output to the FM/AM tuner unit
77	ST DATA OUT	O	Serial data output to the FM/AM tuner unit
78	DIN/STEREO	I	FM stereo detection signal input from the tuner unit "L": stereo
79	ST CLK	O	Serial data transfer clock signal output to the FM/AM tuner unit
80	FL STB	O	Serial data read strobe signal output to the FL/LED driver
81	FL CLK	O	Serial data transfer clock signal output to the FL/LED driver
82	DISC1 LED	O	DISC1 LED control signal output
83	DISC2 LED	O	DISC2 LED control signal output
84	DISC3 LED	O	DISC3 LED control signal output
85	DISC4 LED	O	DISC4 LED control signal output
86	DISC5 LED	O	DISC5 LED control signal output
87	FAN ON	O	Fan motor drive signal output terminal
88, 89	VOL A, VOL B	I	Volume signal input terminal
90 to 92	KEY3 to KEY1	I	Front panel key or headphone detection input terminal (A/D input)
93	SPEC-IN	I	Setting terminal for the destination
94	TC END SW	I	End switch detection from tape deck block
95	TC HALF/REC SW	I	Half/REC switch detection from tape deck block
96	AVSS	—	Ground terminal
97	SEARCH A	I	Jog dial pulse input terminal
98	VREF	I	Reference voltage (+3.3V) input terminal
99	AVCC	—	Power supply terminal (+3.3V)
100	SEARCH B	I	Jog dial pulse input terminal

SECTION 8
EXPLODED VIEWS

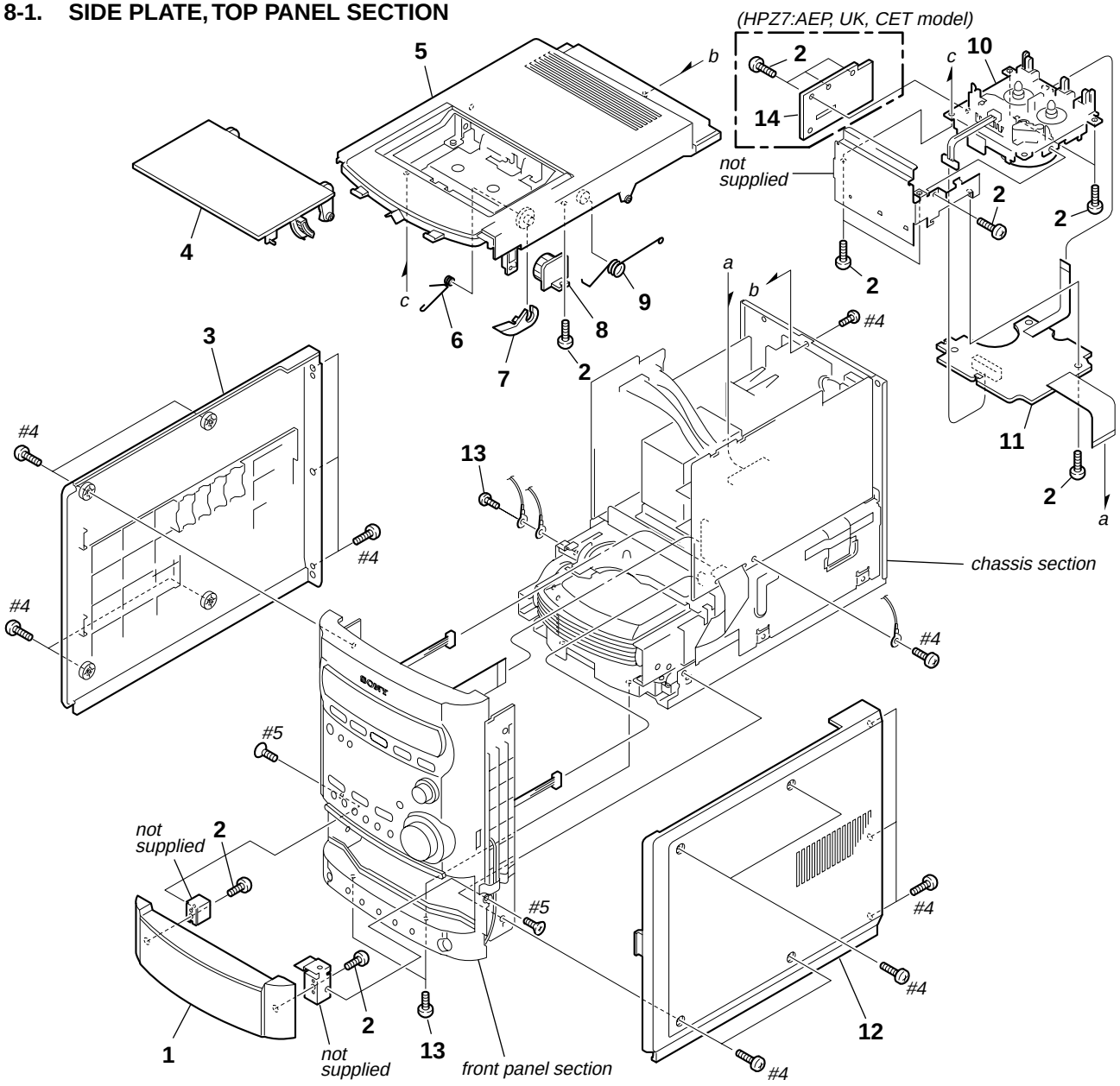
NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Abbreviation
  AR : Argentina model
  AUS : Australian model
  CND : Canadian model
  CET : East European and Russian model
  E51 : Chilean and Peruvian model
  KR : Korea model
  MX : Mexican model
  SP : Singapore model
  TW : Taiwan model

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

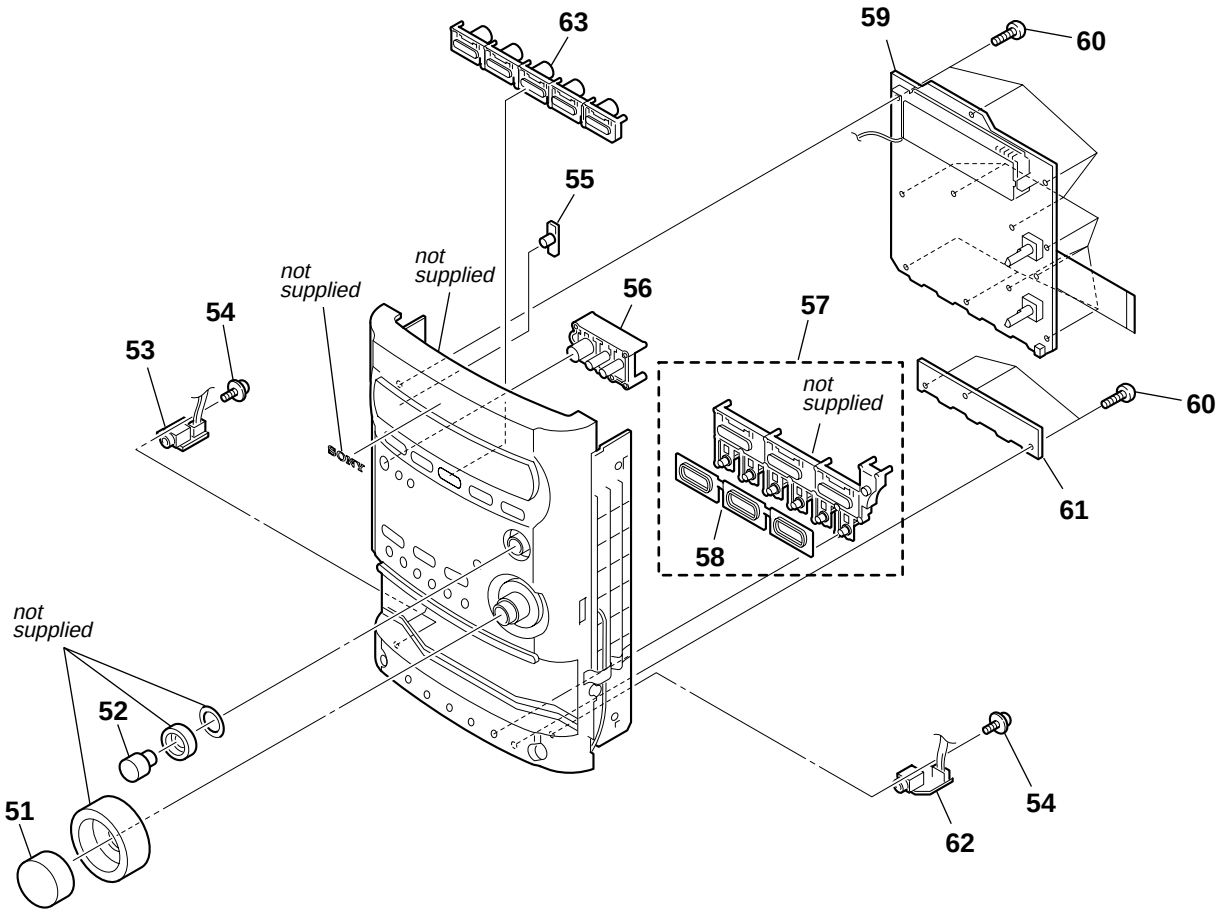
8-1. SIDE PLATE, TOP PANEL SECTION



Ref. No.	Part No.	Description	Remark
1	2-584-889-01	CD LID	
2	3-254-151-01	SCREW (B2.6), (+) P TAPPING	
3	2-584-892-01	PLATE (L), SIDE	
4	2-584-891-01	LID, CASSETTE	
5	2-584-890-01	CABINET (TOP)	
6	4-231-836-01	SPRING (HEART CAM-A)	
7	4-231-824-01	CAM (A), HEART	
8	3-047-468-01	DAMPER	
9	2-587-384-01	SPRING (CASSETTE)	
10	1-796-352-61	DECK, MECHANICAL (CMAL5Z225A)	

Ref. No.	Part No.	Description	Remark
11	A-1106-769-A	AU-TC BOARD, COMPLETE (AEP,UK,CET)	
11	A-1107-064-A	AU-TC BOARD, COMPLETE (US,CND)	
11	A-1107-860-A	AU-TC BOARD, COMPLETE (MX,TW,SP,E51,AR,AUS)	
11	A-1110-390-A	AU-TC BOARD, COMPLETE (KR)	
12	2-584-893-01	PLATE (R), SIDE	
13	3-252-829-01	SCREW (B3), (+) BV TAPPING	
14	A-1119-681-A	SHIELD BOARD, COMPLETE (HPZ7:AEP,UK,CET)	
#4	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#5	7-685-246-19	SCREW +KTP 3X8 TYPE2 NON-SLIT	

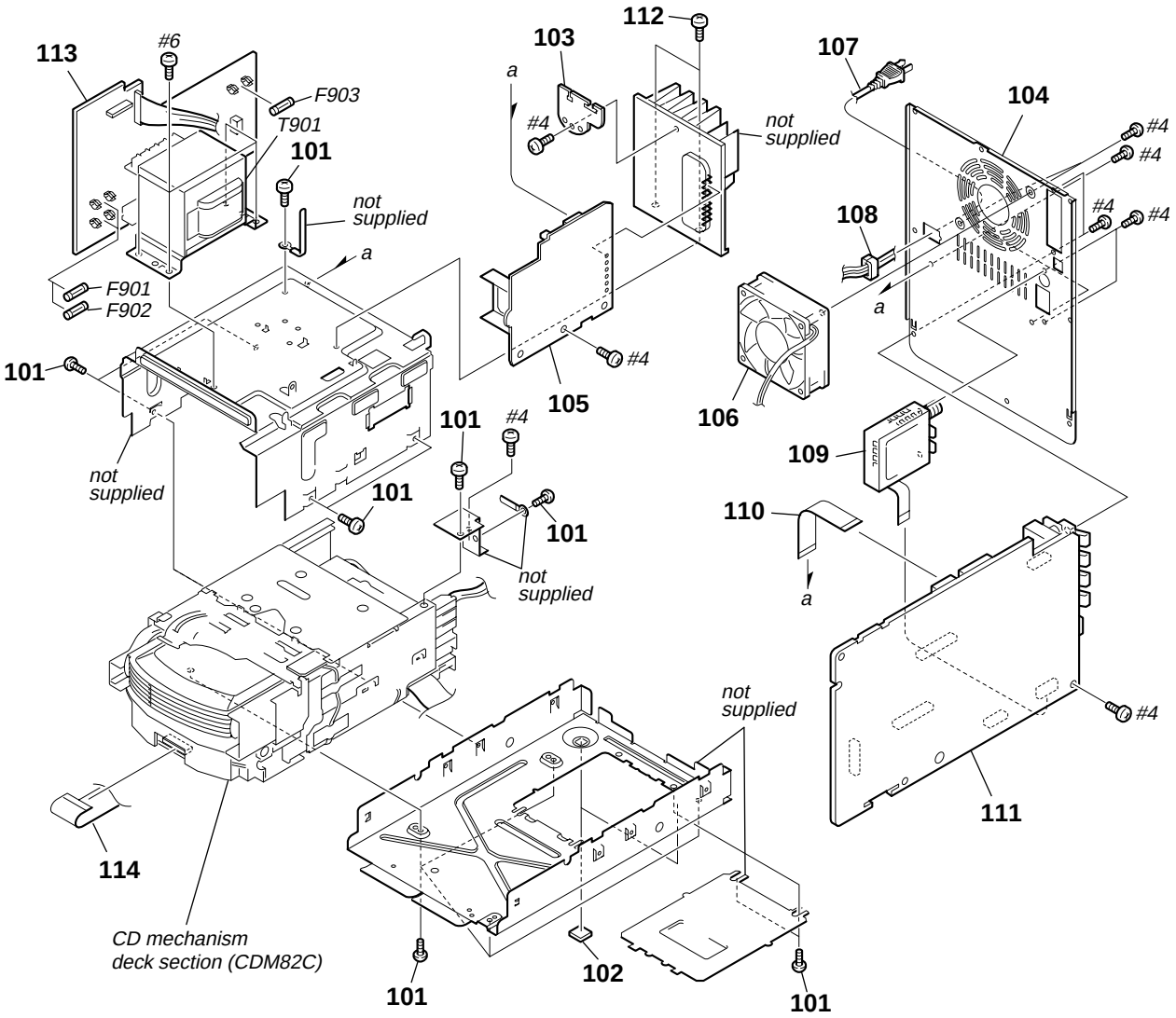
8-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	2-584-897-01	KNOB (VOL)	
52	2-584-896-01	KNOB (JOG)	
53	A-1107-054-A	HEADPHONE BOARD, COMPLETE	
54	3-252-828-01	SCREW (B2.6), (+) PWH TAPPING	
55	2-584-883-01	INDICATOR (POWER)	
56	2-584-881-01	BUTTON (POWER)	
57	X-2055-055-1	BUTTON FUNCTION ASSY	

Ref. No.	Part No.	Description	Remark
58	2-584-886-01	ORNAMENT (FUNCTION)	
59	A-1107-052-A	PANEL (1) BOARD, COMPLETE	
60	3-254-151-01	SCREW (B2.6), (+) P TAPPING	
61	A-1107-053-A	PANEL (2) BOARD, COMPLETE	
62	A-1107-055-A	ANALOG-IN BOARD, COMPLETE	
63	X-2050-998-1	BUTTON DISC ASSY	

8-3. CHASSIS SECTION



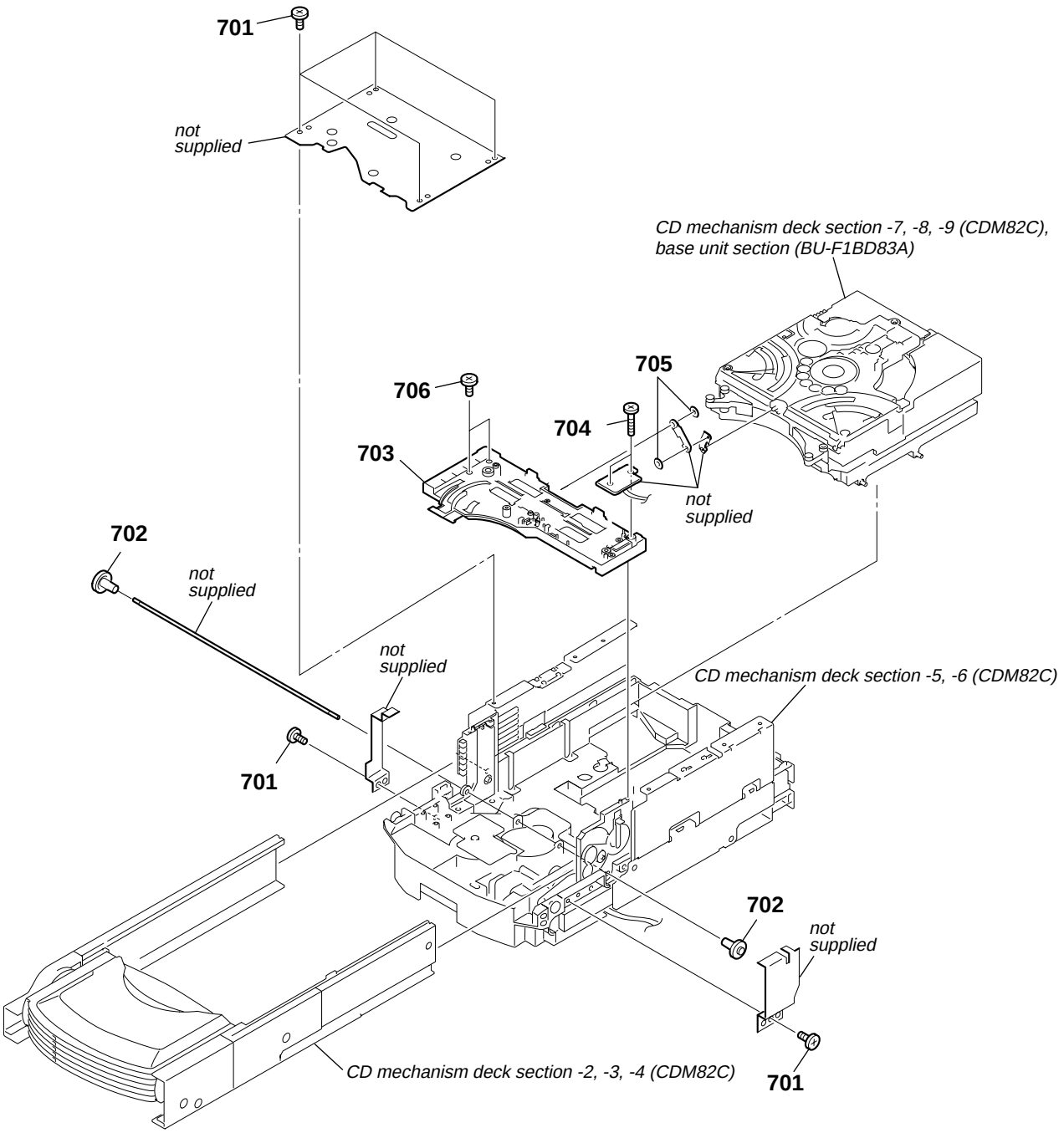
Ref. No.	Part No.	Description	Remark
101	3-252-829-01	SCREW (B3), (+) BV TAPPING	
102	4-247-752-01	FOOT, RUBBER	
103	A-1106-794-A	THERMISTOR BOARD, COMPLETE	
104	2-587-380-01	PANEL (REAR)(US)	
104	2-587-380-11	PANEL (REAR)(HPZ9:CND)	
104	2-587-380-31	PANEL (REAR)(HPZ9:KR)	
104	2-587-380-41	PANEL (REAR)(AR)	
104	2-591-368-11	PANEL (REAR)(HPZ7:CND)	
104	2-591-368-21	PANEL (REAR)(AEP,UK,CET)	
104	2-591-368-61	PANEL (REAR)(MX)	
104	2-591-368-71	PANEL (REAR)(TW)	
104	2-591-368-81	PANEL (REAR)(HPZ7:KR)	
104	2-591-369-11	PANEL (REAR)(HPZ7:SP)	
104	2-591-369-21	PANEL (REAR)(AUS)	
104	2-591-369-31	PANEL (REAR)(HPZ9:SP)	
104	2-591-369-41	PANEL (REAR)(E51)	
105	A-1107-060-A	AMP BOARD, COMPLETE (HPZ9:EXCEPT KR)	
105	A-1110-153-A	AMP BOARD, COMPLETE (HPZ7:CND)	
105	A-1110-177-A	AMP BOARD, COMPLETE (HPZ7:MX,TW,SP)	
105	A-1110-206-A	AMP BOARD, COMPLETE (AEP,UK,CET)	
105	A-1111-834-A	AMP BOARD, COMPLETE (HPZ9:KR)	

Ref. No.	Part No.	Description	Remark
105	A-1111-837-A	AMP BOARD, COMPLETE (HPZ7:KR)	
106	1-787-319-11	FAN, DC	
⚠107	1-830-188-11	CORD, POWER (HPZ7:AEP,UK,CET)	
⚠107	1-830-190-11	CORD, POWER (HPZ7:CND/HPZ9)	
108	3-703-244-00	BUSHING (2104), CORD (EXCEPT MX)	
* 108	3-703-571-12	BUSHING (S)(4516), CORD (MX)	
109	1-693-684-11	TUNER (FM/AM)(US,CND)	
109	1-693-685-11	TUNER (FM/AM)(MX,TW,SP,E51,AR,AUS)	
109	1-693-686-11	TUNER (FM/AM)(AEP,UK,CET)	
109	1-693-687-11	TUNER (FM/AM)(KR)	
110	1-828-963-11	WIRE (FLAT TYPE)(11 CORE)	
111	A-1107-057-A	MAIN BOARD, COMPLETE (HPZ9:US,CND)	
111	A-1110-029-A	MAIN BOARD, COMPLETE (HPZ9:SP,AUS)	
111	A-1110-117-A	MAIN BOARD, COMPLETE (E51,AR)	
111	A-1110-144-A	MAIN BOARD, COMPLETE (HPZ9:KR)	
111	A-1110-152-A	MAIN BOARD, COMPLETE (HPZ7:CND)	
111	A-1110-163-A	MAIN BOARD, COMPLETE (MX)	
111	A-1110-202-A	MAIN BOARD, COMPLETE (AEP,UK,CET)	
111	A-1110-251-A	MAIN BOARD, COMPLETE (HPZ7:TW,SP)	
111	A-1110-276-A	MAIN BOARD, COMPLETE (HPZ7:KR)	
112	3-254-146-01	SCREW (B3), (+) BV TAPPING	

(Continued on Page 87)

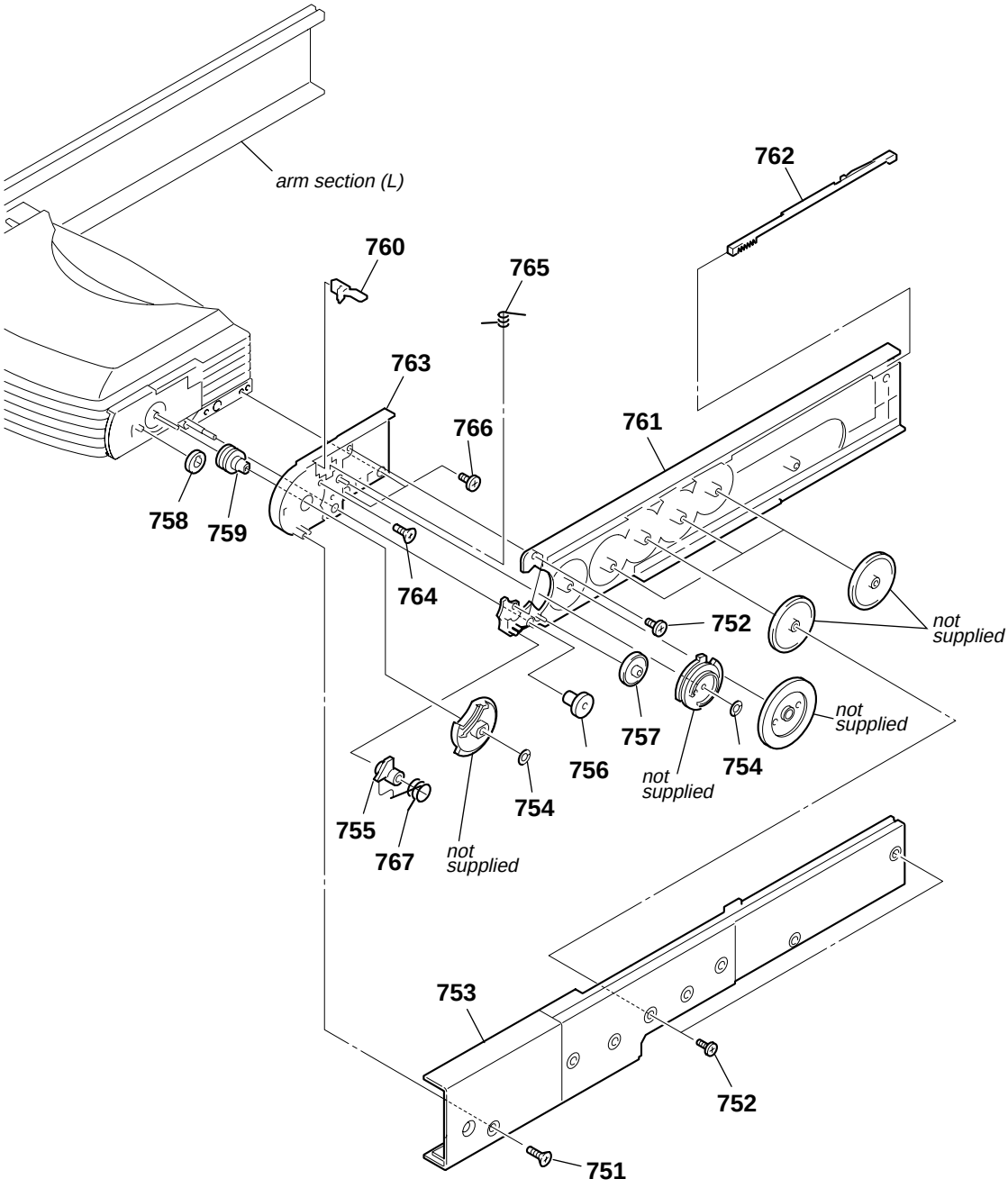
Ref. No.	Part No.	Description	Remark
(Continued from Page 86)			
113	A-1107-049-A	POWER BOARD, COMPLETE (HPZ9:US,CND)	
113	A-1110-025-A	POWER BOARD, COMPLETE (AUS)	
113	A-1110-112-A	POWER BOARD, COMPLETE (HPZ9:SP,E51)	
113	A-1110-128-A	POWER BOARD, COMPLETE (HPZ9:KR,AR)	
113	A-1110-149-A	POWER BOARD, COMPLETE (HPZ7:CND)	
113	A-1110-160-A	POWER BOARD, COMPLETE (MX,TW)	
113	A-1110-195-A	POWER BOARD, COMPLETE (AEP,UK,CET)	
113	A-1110-217-A	POWER BOARD, COMPLETE (HPZ7:SP)	
113	A-1110-386-A	POWER BOARD, COMPLETE (HPZ7:KR)	
114	1-829-017-11	WIRE (FLAT TYPE)(21 CORE)	
⚠F901	1-533-452-12	FUSE, GLASS TUBE (DIA. 5)(4A/125V)	(HPZ7:CND)
⚠F901	1-533-454-12	FUSE, GLASS TUBE (DIA. 5)(6.3A/125V)	(HPZ9:US,CND)
⚠F901	1-533-471-12	FUSE, GLASS TUBE (DIA. 5)(T4A/250V)	(AEP,UK,MX,TW,CET,HPZ7:KR,SP)
⚠F901	1-533-472-12	FUSE, GLASS TUBE (DIA. 5)(5A/250V)	(HPZ9:KR,SP,E51,AR,AUS)
⚠F902	1-533-471-12	FUSE, GLASS TUBE (DIA. 5)(T4A/250V)	(HPZ7:AEP,UK,MX,TW,KR,CET,SP)
⚠F902	1-533-452-12	FUSE, GLASS TUBE (DIA. 5)(4A/125V)	(HPZ7:CND)
⚠F902	1-533-454-12	FUSE, GLASS TUBE (DIA. 5)(6.3A/125V)	(HPZ9:US,CND)
⚠F902	1-533-472-12	FUSE, GLASS TUBE (DIA. 5)(5A/250V)	(HPZ9:KR,SP,E51,AR,AUS)
⚠F903	1-533-451-12	FUSE, GLASS TUBE (DIA. 5)(3.15A/125V)	(HPZ7:CND)
⚠F903	1-533-454-12	FUSE, GLASS TUBE (DIA. 5)(6.3A/125V)	(US,CND)
⚠F903	1-533-468-12	FUSE, GLASS TUBE (DIA. 5)(2A/250V)	(HPZ7:MX,TW,SP)
⚠F903	1-533-469-12	FUSE, GLASS TUBE (DIA. 5)(2.5A/250V)	(HPZ9:SP,E51)
⚠T901	1-443-681-11	TRANSFORMER, POWER (HPZ7:MX,TW,KR,SP)	
⚠T901	1-443-682-11	TRANSFORMER, POWER (HPZ7:CND)	
⚠T901	1-443-683-11	TRANSFORMER, POWER (AEP,UK,CET)	
⚠T901	1-443-685-11	TRANSFORMER, POWER	(HPZ9:KR,SP,E51,AR,AUS)
⚠T901	1-443-686-11	TRANSFORMER, POWER (US,CND)	
#4	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#6	7-685-880-09	SCREW +BVTT 4X6 (S)	

8-4. CD MECHANISM DECK SECTION-1 (CDM82C)



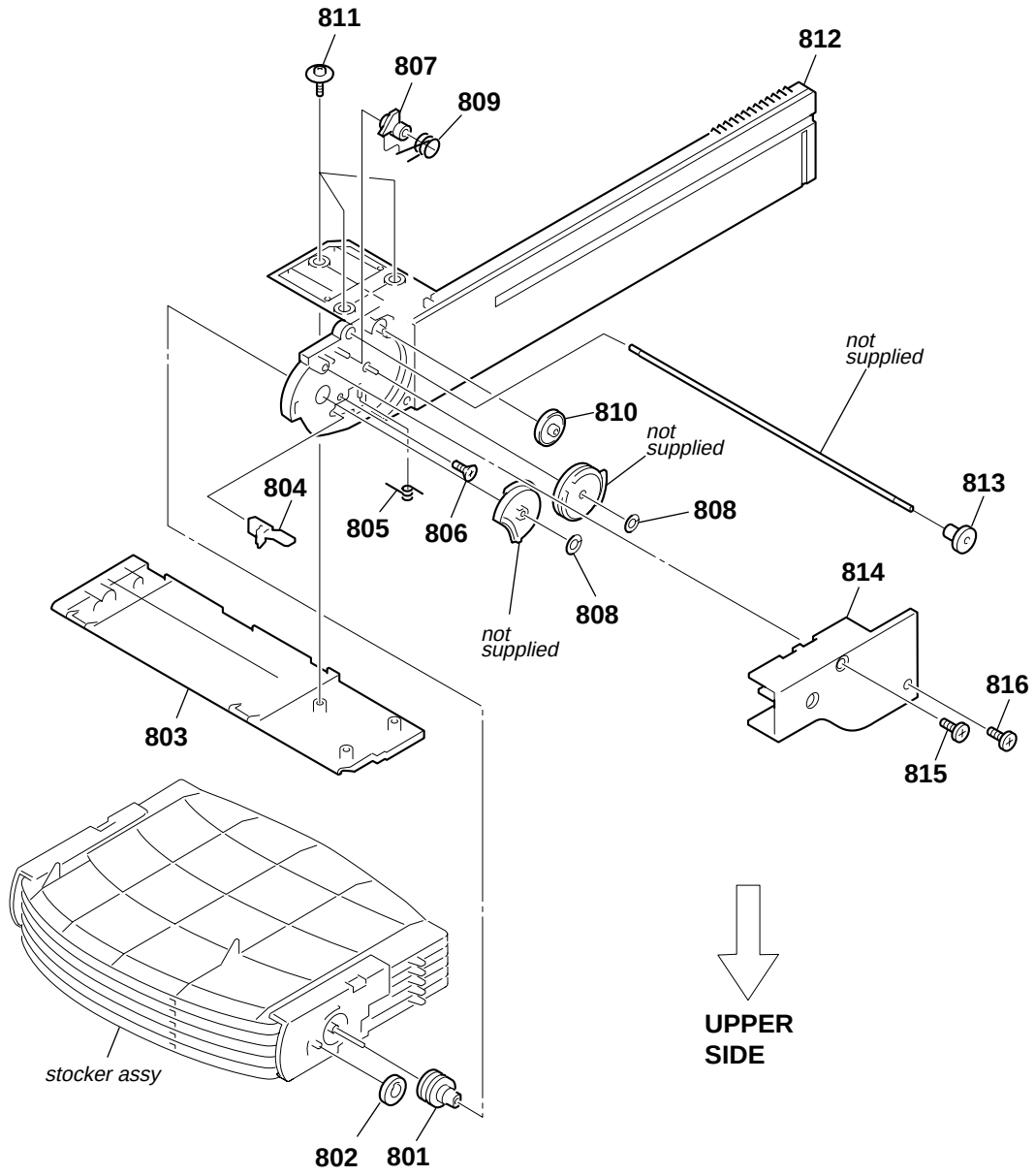
Ref. No.	Part No.	Description	Remark
701	4-218-253-31	SCREW (M2.6), +BTTP	
702	4-252-881-01	GEAR (JOINT OP)	
703	4-252-843-02	TOP	
704	4-253-811-01	+PTPWH 2X14	
705	4-255-299-01	WASHER (DIA. 3.5)	
706	4-908-618-42	SCREW (+BTP)(2X8)	

8-5. CD MECHANISM DECK SECTION-2 (CDM82C)



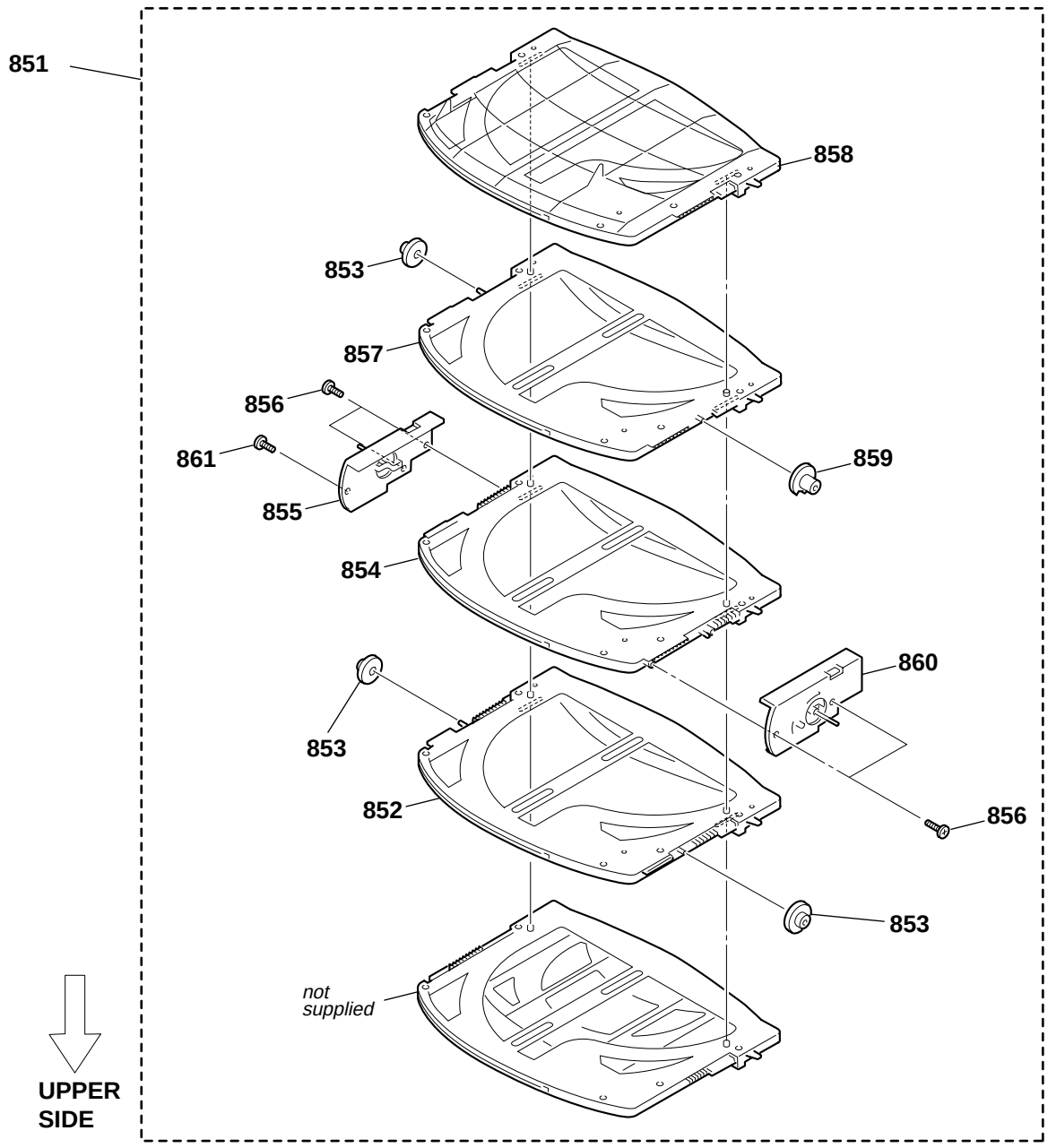
Ref. No.	Part No.	Description	Remark
751	2-641-430-31	SCREW (2.6), (+) K TAPPING	
752	4-253-344-01	SCREW (2)	
753	4-252-827-05	COVER (R)	
754	2-021-250-01	WASHER (5.5)	
755	4-255-344-01	LEVER (SUB GEAR BACK R)	
756	4-252-806-01	GEAR (STOCK JOINT)	
757	4-252-819-01	GEAR (JOINT JUST FRONT), SUB	
758	4-252-804-01	GEAR (STOCK PLANET)	
759	4-252-802-01	GEAR (STOCK SUN)	
760	4-252-816-01	LEVER (LOCK R)	
761	4-252-810-01	ARM (R)	
762	A-1060-629-A	SLIDER ASSY, SUB	
763	4-252-808-01	BASE (A), STOCK	
764	4-253-564-01	SCREW (1.7)	
765	4-252-818-01	SPRING (STOCK LOCK R)	
766	4-218-253-62	SCREW (M2.6), +BTTP	
767	2-021-898-02	SPR-T (SUB GEAR BACK R)	

8-6. CD MECHANISM DECK SECTION-3 (CDM82C)



Ref. No.	Part No.	Description	Remark
801	4-252-802-01	GEAR (STOCK SUN)	
802	4-252-804-01	GEAR (STOCK PLANET)	
803	4-253-802-02	BASE (B), STOCK	
804	4-252-815-01	LEVER (LOCK L)	
805	4-252-817-01	SPRING (STOCK LOCK L)	
806	4-253-564-01	SCREW (1.7)	
807	4-255-345-01	LEVER (SUB GEAR BACK L)	
808	2-021-250-01	WASHER (5.5)	
809	4-255-340-02	SPR-T (SUB GEAR BACK L)	
810	4-252-819-01	GEAR (JOINT JUST FRONT), SUB	
811	4-985-672-01	SCREW (+PTPWH M2.6), FLOATING	
812	4-252-809-03	ARM (L)	
813	4-252-806-01	GEAR (STOCK JOINT)	
814	4-252-826-01	COVER (L)	
815	2-641-430-31	SCREW (2.6), (+) K TAPPING	
816	4-253-344-01	SCREW (2)	

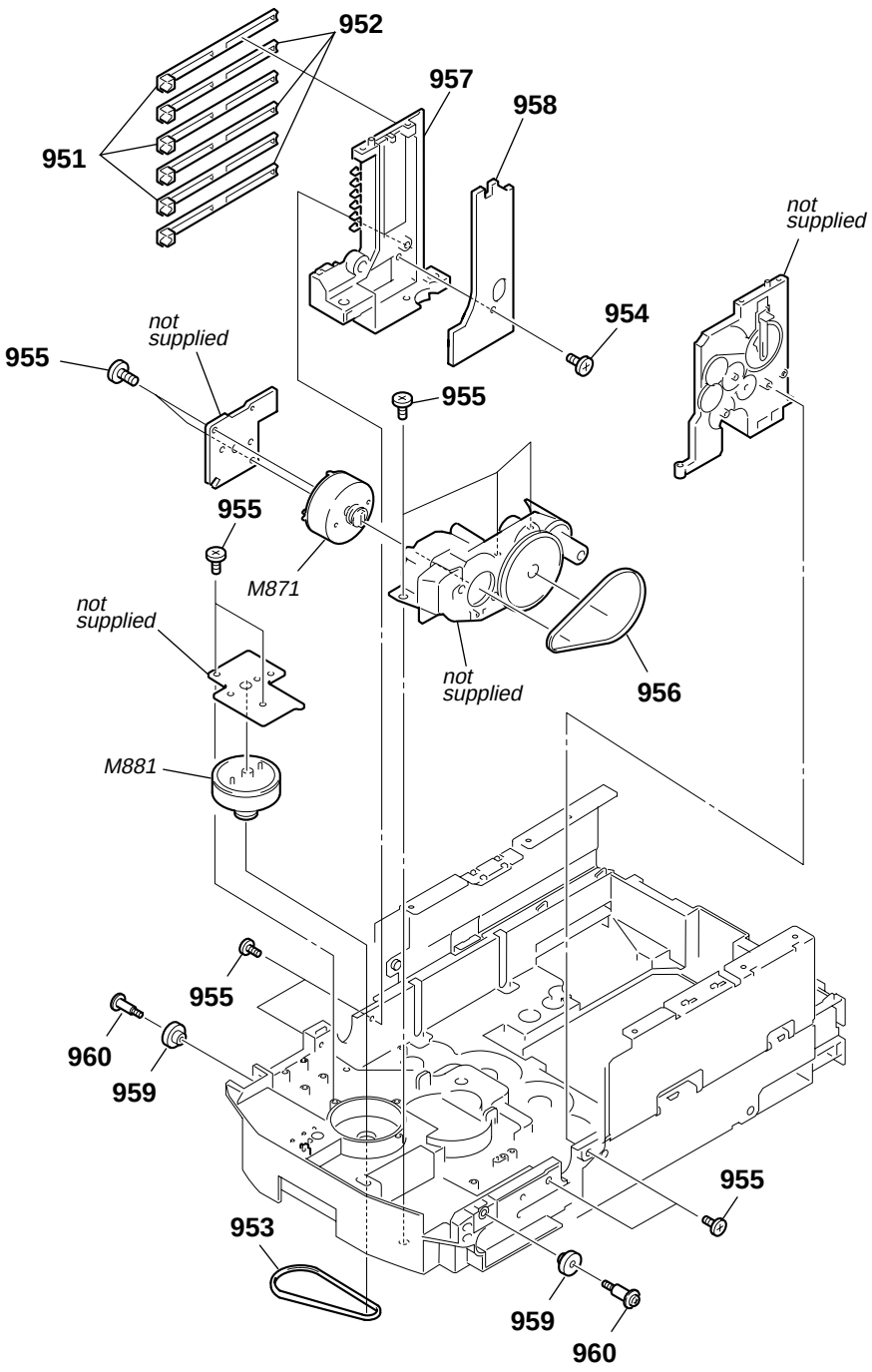
8-7. CD MECHANISM DECK SECTION-4 (CDM82C)



Ref. No.	Part No.	Description	Remark
851	A-1090-349-A	STOCKER ASSY	
852	A-1060-625-A	STOCKER (4) ASSY	
853	4-252-800-01	GEAR (STOCK LOT SHORT)	
854	A-1060-626-A	STOCKER (3) ASSY	
855	4-252-798-05	BOX (L), STOCK	
856	4-253-344-01	SCREW (2)	

Ref. No.	Part No.	Description	Remark
857	A-1060-627-A	STOCKER (2) ASSY	
858	A-1060-628-A	STOCKER (1) ASSY	
859	4-252-801-01	GEAR (STOCK LOT LONG)	
860	4-252-799-04	BOX (R), STOCK	
861	2-149-046-01	SCREW (1.7 BOX), STEP TAPPING	

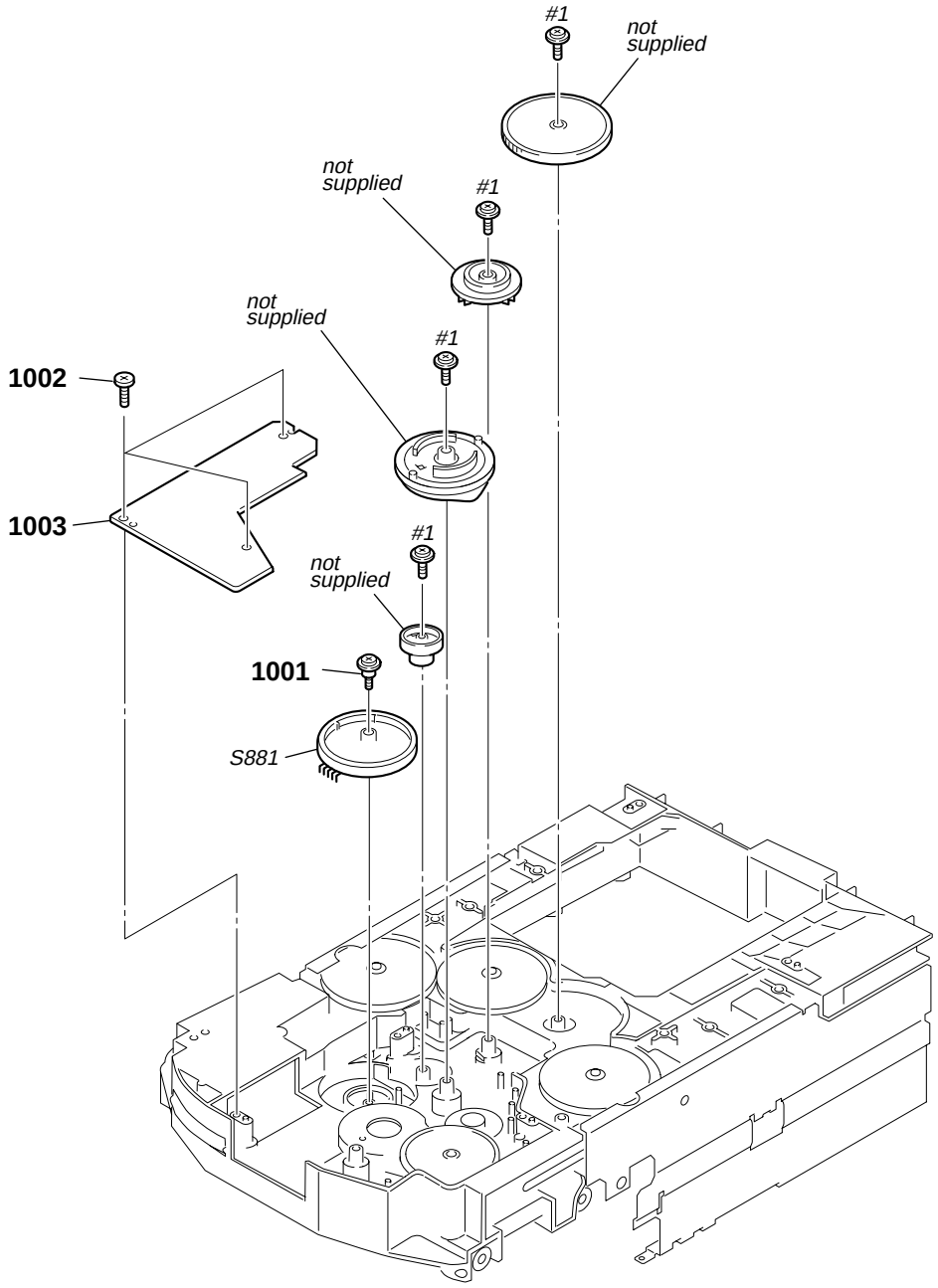
8-8. CD MECHANISM DECK SECTION-5 (CDM82C)



Ref. No.	Part No.	Description	Remark
951	4-252-829-01	SLIDER (PUSH POPUP1)	
952	4-252-830-01	SLIDER (PUSH POPUP2)	
953	4-252-883-01	BELT (MOT UD)	
954	4-218-253-62	SCREW (M2.6), +BTTP	
955	4-218-253-31	SCREW (M2.6), +BTTP	
956	4-252-866-01	BELT (MOT OP)	

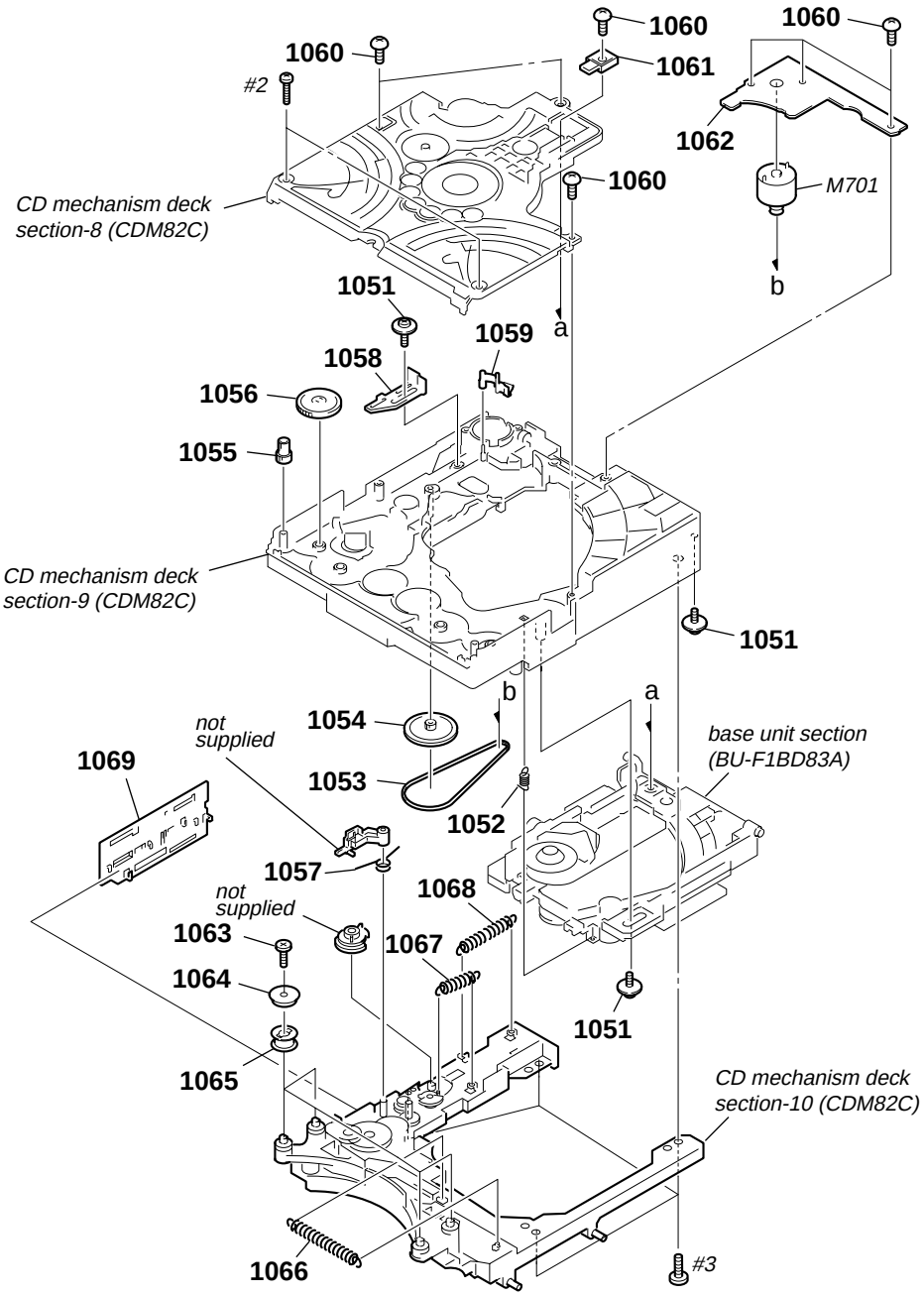
Ref. No.	Part No.	Description	Remark
957	4-252-828-05	CHASSIS (L), SUB	
958	A-1092-131-A	SW , DISC BOARD, COMPLETE	
959	4-252-884-01	ROLLER	
960	4-239-618-02	SCREW (+PWH, 2X6), STEP TAPPING	
M871	A-1060-630-A	MOTOR ASSY (LOD)	
M881	A-1060-630-A	MOTOR ASSY (ELV)	

8-9. CD MECHANISM DECK SECTION-6 (CDM82C)



Ref. No.	Part No.	Description	Remark
1001	4-239-618-02	SCREW (+PWH, 2X6), STEP TAPPING	
1002	4-218-253-62	SCREW (M2.6), +BTTP	
1003	A-1119-164-A	RELAY BOARD, COMPLETE	
S881	1-478-706-11	ENCODER, ROTARY	
#1	7-685-902-21	SCREW +PTPWH 2.6X8 (TYPE2)	

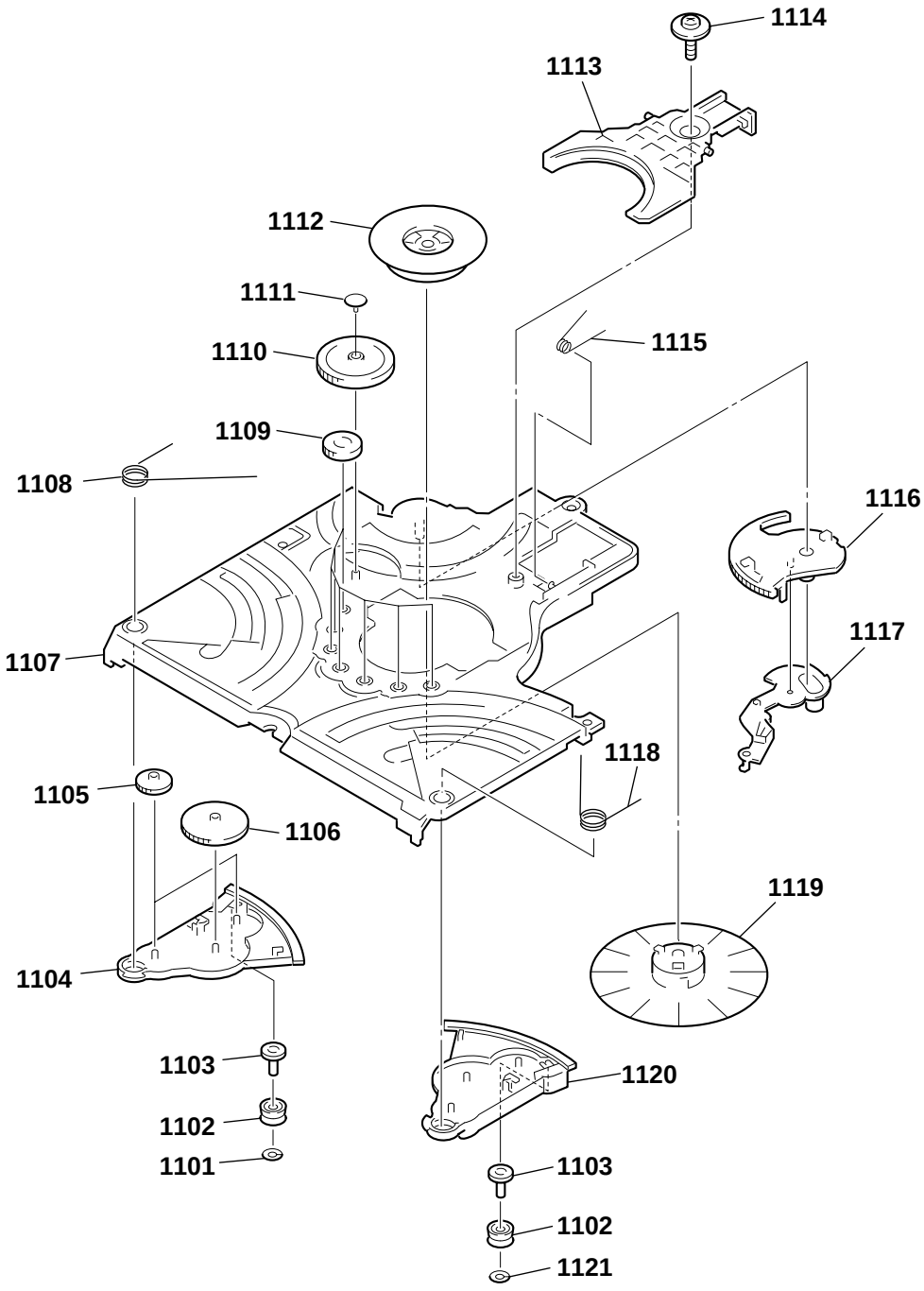
8-10. CD MECHANISM DECK SECTION-7 (CDM82C)



Ref. No.	Part No.	Description	Remark
1051	4-985-672-01	SCREW (+PTPWH M2.6), FLOATING	
1052	2-515-538-01	SPRING (HOLDER DOWN B), COIL	
1053	4-245-653-01	BELT (MOT)	
1054	4-245-662-02	PULLEY (GEAR)	
1055	4-245-646-01	GEAR (IDL-F)	
1056	4-245-644-01	GEAR (IDL-D)	
1057	4-252-895-01	SPR-T (LOCK)	
1058	4-246-203-01	LEVER (RELEASE)	
1059	4-245-630-01	LEVER (SW)	
1060	3-087-053-01	+BVTP2.6 (3CR)	
1061	4-245-639-01	LEVER (CL UP2)	

Ref. No.	Part No.	Description	Remark
1062	A-4751-507-A	MOTOR BOARD, COMPLETE	
1063	4-253-344-01	SCREW (2)	
1064	4-252-904-01	PARASOL	
1065	4-252-908-01	ROLLER, RUBBER	
1066	4-252-903-01	SPRING (LOWER), TENSION	
1067	4-252-898-01	SPR-E (TAKO BACK)	
1068	4-252-899-01	SPR-E (PLATE PUSH BACK)	
1069	A-1060-631-A	PLATE (PUSH) ASSY	
M701	X-4955-496-1	MOTOR (PULLEY) ASSY (LOD)	
#2	7-685-106-19	SCREW +P 2X10 TYPE2 NON-SLIT	
#3	7-685-648-79	SCREW +P 3X12 TYPE2 NON-SLIT	

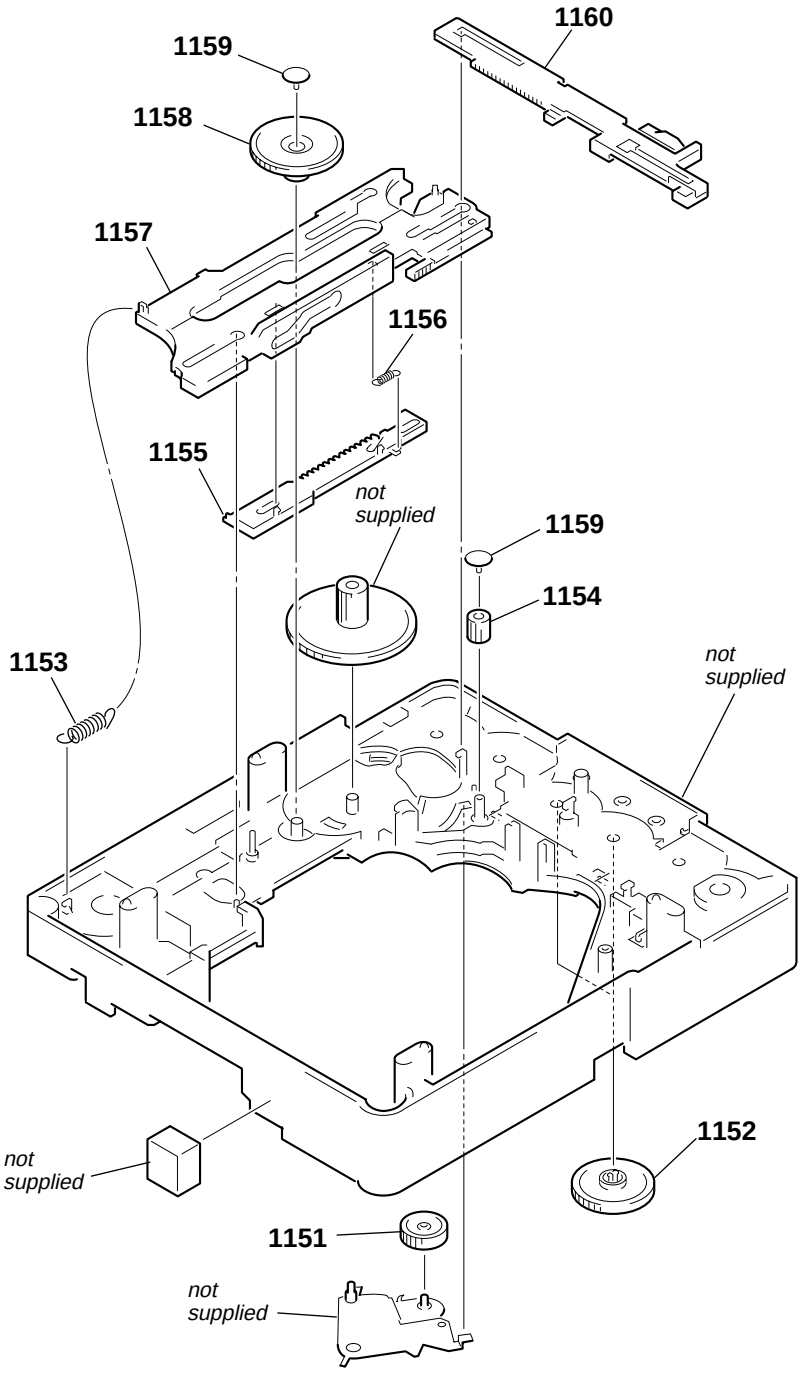
8-11. CD MECHANISM DECK SECTION-8 (CDM82C)



Ref. No.	Part No.	Description	Remark
1101	4-245-627-01	WASHER (6-2.7-0.4)	
1102	4-245-637-11	ROLLER, RUBBER	
1103	4-245-649-01	GEAR (IDL-I)	
1104	4-245-657-11	LEVER (LOADING-R)	
1105	4-245-647-01	GEAR (IDL-G)	
1106	4-245-648-01	GEAR (IDL-H)	
1107	4-245-655-01	CHASSIS (TOP)	
1108	4-245-631-11	SPT-T (LOADING-R)	
1109	4-245-650-01	GEAR (IDL-J)	
1110	4-245-651-11	GEAR (IDL-L)	
1111	4-245-640-01	GEAR (CAP)	

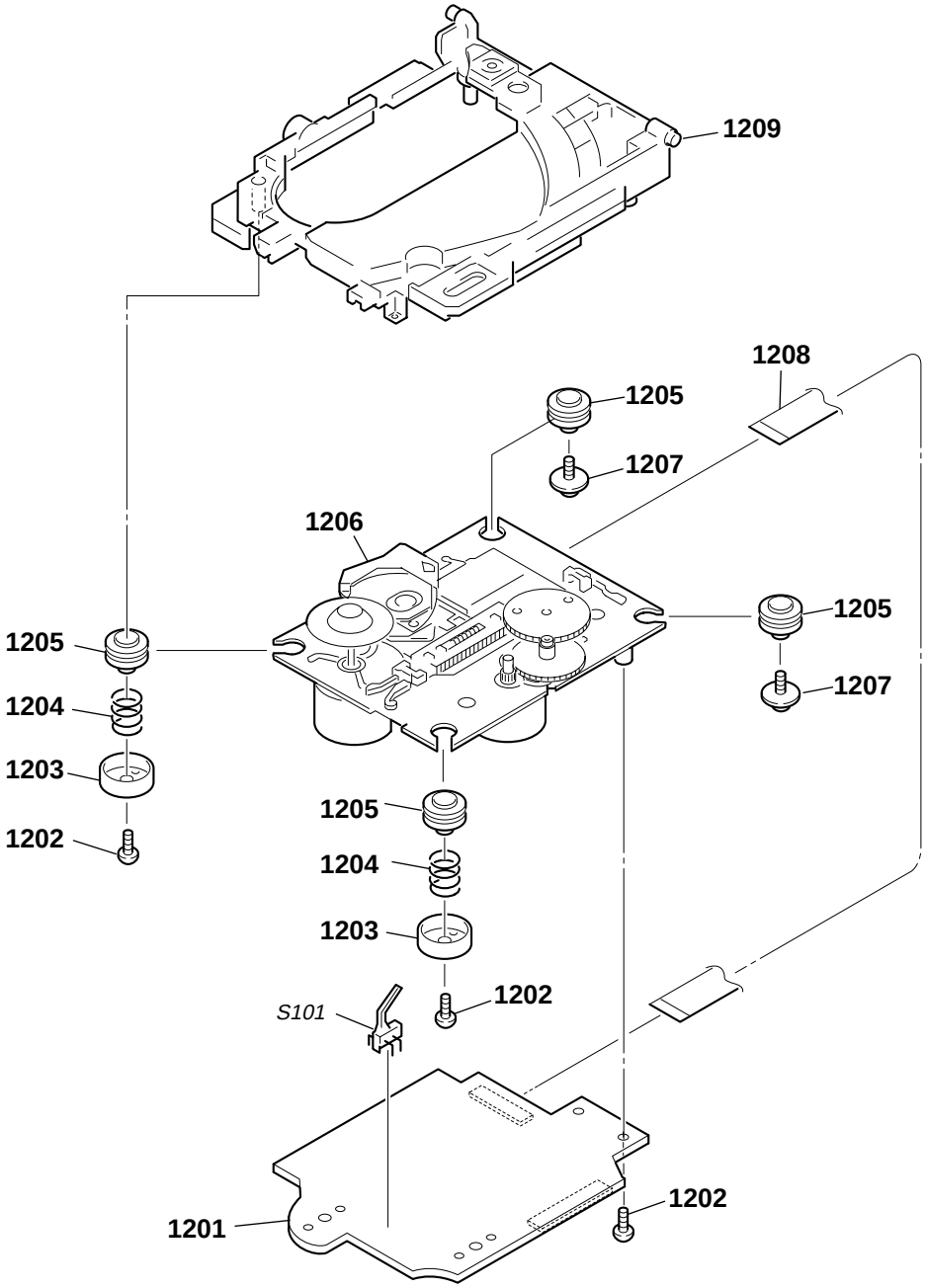
Ref. No.	Part No.	Description	Remark
1112	1-452-925-21	MAGNET ASSY	
1113	4-245-638-01	LEVER (CL UP1)	
1114	4-985-672-01	SCREW (+PTPWH M2.6), FLOATING	
1115	4-245-636-01	SPR-T CL DOWN	
1116	4-245-658-11	LEVER (DISC STOP)	
1117	4-245-659-11	LEVER (DISC SENSOR)	
1118	4-245-632-11	SPR-T (LOADING-L)	
1119	X-2021-532-1	CLAMPER 213 ASSY	
1120	4-245-656-11	LEVER (LOADING-L)	
1121	4-253-747-01	STOPPER (IDL-I)	

8-12. CD MECHANISM DECK SECTION-9 (CDM82C)



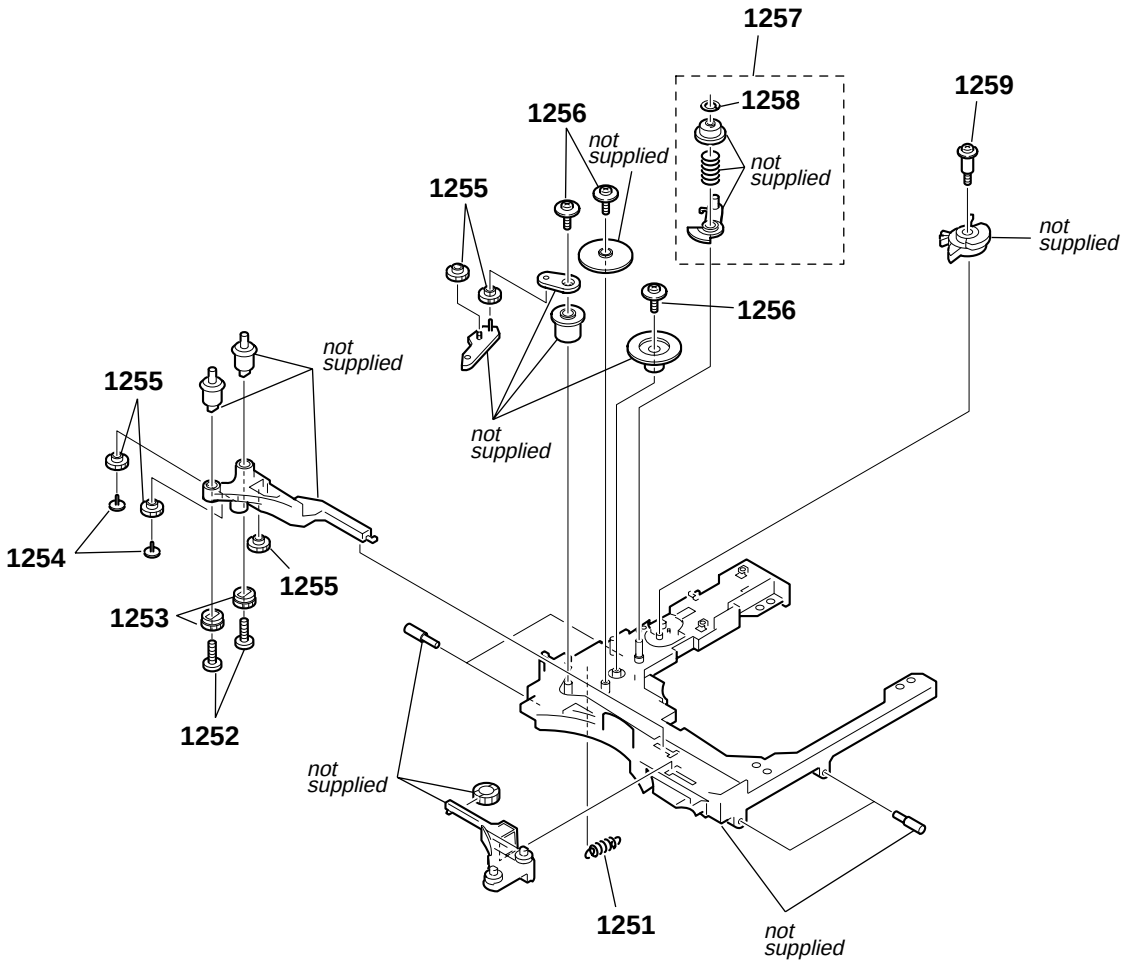
Ref. No.	Part No.	Description	Remark
1151	4-245-643-01	GEAR (IDL-C)	
1152	4-245-644-01	GEAR (IDL-D)	
1153	2-515-536-01	SPRING (DIR), TENSION COIL	
1154	4-245-629-01	GEAR (BU LOCK)	
1155	4-245-814-01	LEVER (DIR FIRST)	
1156	2-515-534-01	SPRING (DIR BACK), TENSION COIL	
1157	4-245-660-11	LEVER (DIR)	
1158	4-245-641-01	GEAR (IDL-A)	
1159	4-245-640-01	GEAR (CAP)	
1160	4-245-628-01	LEVER (BU LOCK)	

8-13. BASE UNIT SECTION (BU-F1BD83A)



Ref. No.	Part No.	Description	Remark
1201	A-1085-381-A	BD (A) BOARD, COMPLETE	
1202	3-087-053-01	+BVTP2.6 (3CR)	
1203	4-231-151-01	STOPPER (BU)	
1204	4-227-045-31	SPRING (INSULATOR), COIL	
1205	4-227-549-11	INSULATOR	
⚠1206	8-820-244-01	OPTICAL PICK-UP KSM-215DCP/C2NP	
1207	4-985-672-01	SCREW (+PTPWH M2.6), FLOATING	
1208	1-827-992-11	WIRE (FLAT TYPE)(16 CORE)	
1209	X-4956-146-1	HOLDER (BU215) ASSY	
S101	1-771-853-11	SWITCH, DETECTION (LIMIT)	

8-14. CD MECHANISM DECK SECTION-10 (CDM82C)



Ref. No.	Part No.	Description	Remark
1251	4-252-897-01	SPR-E (LOCK-OUT)	
1252	4-218-253-62	SCREW (M2.6), +BTTP	
1253	4-252-907-02	GEAR (PARASOL 12)	
1254	4-245-640-01	GEAR (CAP)	
1255	4-252-913-01	GEAR (GOOSENECK GENERAL SMALL)	
1256	4-992-069-01	SCREW (+PTPWH)(M2)(DIA. 7)	
1257	A-1060-632-A	CLUTCH ASSY	
1258	2-021-250-01	WASHER (5.5)	
1259	4-239-618-02	SCREW (+PWH, 2X6), STEP TAPPING	

SECTION 9
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- CAPACITORS
  uF: µF
- COILS
  uH: µH
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA. . : µA. . , uPA. . , µPA. . ,
  uPB. . : µPB. . , uPC. . , µPC. . ,
  uPD. . : µPD. .
- Abbreviation
  AR : Argentina model
  AUS : Australian model
  CND : Canadian model
  CET : East European and Russian model
  E51 : Chilean and Peruvian model
  KR : Korea model
  MX : Mexican model
  SP : Singapore model
  TW : Taiwan model

When indicating parts by reference number, please include the board name.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description			Remark
	A-1107-060-A	AMP BOARD, COMPLETE (HPZ9:EXCEPT KR)			
	A-1110-153-A	AMP BOARD, COMPLETE (HPZ7:CND)			
	A-1110-177-A	AMP BOARD, COMPLETE (HPZ7:MX,TW,SP)			
	A-1110-206-A	AMP BOARD, COMPLETE (AEP,UK,CET)			
	A-1110-834-A	AMP BOARD, COMPLETE (HPZ9:KR)			
	A-1111-837-A	AMP BOARD, COMPLETE (HPZ7:KR)			
		**********			
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S			
		< CAPACITOR >			
C501	1-126-964-11	ELECT	10uF	20%	50V
C502	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C503	1-126-967-11	ELECT	47uF	20%	50V
C504	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C505	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V (HPZ9)
C505	1-162-945-11	CERAMIC CHIP	22PF	5%	50V (HPZ7)
C506	1-126-957-11	ELECT	0.22uF	20%	50V
C507	1-130-495-00	MYLAR	0.1uF	5%	50V
C551	1-126-964-11	ELECT	10uF	20%	50V
C552	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C553	1-126-967-11	ELECT	47uF	20%	50V
C554	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C555	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V (HPZ9)
C555	1-162-945-11	CERAMIC CHIP	22PF	5%	50V (HPZ7)
C556	1-126-957-11	ELECT	0.22uF	20%	50V
C557	1-130-495-00	MYLAR	0.1uF	5%	50V
C603	1-130-471-00	MYLAR	0.001uF	5%	50V (AEP,UK,KR,CET)
C604	1-126-964-11	ELECT	10uF	20%	50V
C605	1-104-658-91	ELECT	100uF	20%	10V
C606	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C607	1-126-964-11	ELECT	10uF	20%	50V
C608	1-104-658-91	ELECT	100uF	20%	10V
C609	1-126-961-11	ELECT	2.2uF	20%	50V
C610	1-126-965-91	ELECT	22uF	20%	50V
C611	1-126-965-91	ELECT	22uF	20%	50V
C613	1-126-964-11	ELECT	10uF	20%	50V
C614	1-128-550-11	ELECT	2200uF	20%	50V (HPZ7)
C614	1-135-928-21	ELECT	2200uF	20%	63V (HPZ9)
C615	1-128-550-11	ELECT	2200uF	20%	50V (HPZ7)
C615	1-135-928-21	ELECT	2200uF	20%	63V (HPZ9)
C616	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C617	1-130-471-00	MYLAR	0.001uF	5%	50V (AEP,UK,KR,CET)
C618	1-136-165-00	FILM	0.1uF	5%	50V (HPZ7)
C618	1-137-354-11	FILM	0.1uF	5%	100V (HPZ9)
C619	1-136-165-00	FILM	0.1uF	5%	50V (HPZ7)
C619	1-137-354-11	FILM	0.1uF	5%	100V (HPZ9)
		< CONNECTOR >			
CN601	1-568-830-11	CONNECTOR, FFC 11P			
		< JACK >			
CNJ991	1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P			
		< DIODE >			
D501	8-719-000-08	DIODE MC2838			
D603	8-719-988-61	DIODE 1SS355TE-17			
D607	8-719-069-54	DIODE UDZSTE-175.1B			
D608	8-719-000-08	DIODE MC2838			
D609	8-719-000-07	DIODE MC2836			
D610	8-719-988-61	DIODE 1SS355TE-17			
D612	8-719-988-61	DIODE 1SS355TE-17			
D901	8-719-500-60	DIODE D5SBA20			
		< EARTH TERMINAL >			
EP602	1-537-770-21	TERMINAL BOARD, GROUND			
		< IC >			
IC601	6-705-620-01	IC STK433-060 (HPZ7:CND,MX,TW,KR,SP)			
IC601	6-705-621-01	IC STK433-070 (AEP,UK,CET)			
IC601	6-706-406-01	IC STK403-090-S (HPZ9)			
IC602	6-703-610-01	IC RT8H015C-T112-1			
		< SHORT >			
JR601	1-216-864-11	SHORT CHIP	0		
JR602	1-216-864-11	SHORT CHIP	0		
JR603	1-216-864-11	SHORT CHIP	0		

AMP **ANALOG-IN**

Ref. No.	Part No.	Description			Remark
		< TRANSISTOR >			
Q501	6-550-889-01	TRANSISTOR	2SC5938-T112-1B		
Q502	8-729-600-22	TRANSISTOR	2SA1235-F		
Q551	6-550-889-01	TRANSISTOR	2SC5938-T112-1B		
Q552	8-729-600-22	TRANSISTOR	2SA1235-F		
Q602	8-729-027-23	TRANSISTOR	DTA114EKA-T146		
Q603	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q604	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q605	8-729-600-22	TRANSISTOR	2SA1235-F		
Q606	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q607	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q608	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q609	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q610	8-729-028-54	TRANSISTOR	KTC3205		
Q611	8-729-028-54	TRANSISTOR	KTC3205		
		< RESISTOR >			
R501	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R502	1-216-845-11	METAL CHIP	100K	5%	1/10W
R503	1-216-821-11	METAL CHIP	1K	5%	1/10W
R504	1-216-821-11	METAL CHIP	1K	5%	1/10W
R506	1-216-864-11	SHORT CHIP	0		
R507	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R508	1-216-825-11	METAL CHIP	2.2K	5%	1/10W (HPZ7)
R508	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (HPZ9)
R509	1-216-825-11	METAL CHIP	2.2K	5%	1/10W (HPZ9)
R510	1-216-833-11	METAL CHIP	10K	5%	1/10W
R511	1-216-841-11	METAL CHIP	47K	5%	1/10W
R512	1-216-821-11	METAL CHIP	1K	5%	1/10W
R513	1-216-833-11	METAL CHIP	10K	5%	1/10W
R514	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R515	1-217-156-00	METAL	0.22	10%	5W (HPZ9)
R515	1-220-755-11	METAL	0.22	10%	2W (HPZ7)
R516	1-216-845-11	METAL CHIP	100K	5%	1/10W
R517	1-260-076-11	CARBON	10	5%	1/2W
R518	1-216-833-11	METAL CHIP	10K	5%	1/10W
R519	1-216-841-11	METAL CHIP	47K	5%	1/10W
R551	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R552	1-216-845-11	METAL CHIP	100K	5%	1/10W
R553	1-216-821-11	METAL CHIP	1K	5%	1/10W
R554	1-216-821-11	METAL CHIP	1K	5%	1/10W
R556	1-216-864-11	SHORT CHIP	0		
R557	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R558	1-216-825-11	METAL CHIP	2.2K	5%	1/10W (HPZ7)
R558	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (HPZ9)
R559	1-216-825-11	METAL CHIP	2.2K	5%	1/10W (HPZ9)
R560	1-216-833-11	METAL CHIP	10K	5%	1/10W
R561	1-216-841-11	METAL CHIP	47K	5%	1/10W
R562	1-216-821-11	METAL CHIP	1K	5%	1/10W
R563	1-216-833-11	METAL CHIP	10K	5%	1/10W
R564	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R565	1-217-156-00	METAL	0.22	10%	5W (HPZ9)
R565	1-220-755-11	METAL	0.22	10%	2W (HPZ7)
R566	1-216-845-11	METAL CHIP	100K	5%	1/10W
R567	1-260-076-11	CARBON	10	5%	1/2W
R568	1-216-841-11	METAL CHIP	47K	5%	1/10W
R569	1-216-833-11	METAL CHIP	10K	5%	1/10W
R601	1-216-833-11	METAL CHIP	10K	5%	1/10W
R602	1-216-849-11	METAL CHIP	220K	5%	1/10W
R604	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R605	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R606	1-202-972-61	FUSIBLE	1	5%	1/4W
R607	1-202-972-61	FUSIBLE	1	5%	1/4W
R608	1-212-857-00	FUSIBLE	10	5%	1/4W
R609	1-216-833-11	METAL CHIP	10K	5%	1/10W
R610	1-216-837-11	METAL CHIP	22K	5%	1/10W
R611	1-216-833-11	METAL CHIP	10K	5%	1/10W
R612	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R613	1-216-841-11	METAL CHIP	47K	5%	1/10W
R614	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R617	1-216-833-11	METAL CHIP	10K	5%	1/10W
R618	1-216-833-11	METAL CHIP	10K	5%	1/10W
R619	1-216-833-11	METAL CHIP	10K	5%	1/10W
R620	1-216-845-11	METAL CHIP	100K	5%	1/10W
R621	1-216-821-11	METAL CHIP	1K	5%	1/10W
R622	1-216-853-11	METAL CHIP	470K	5%	1/10W
R623	1-216-833-11	METAL CHIP	10K	5%	1/10W
R624	1-216-845-11	METAL CHIP	100K	5%	1/10W
R625	1-216-837-11	METAL CHIP	22K	5%	1/10W
R626	1-216-809-11	METAL CHIP	100	5%	1/10W
R627	1-216-821-11	METAL CHIP	1K	5%	1/10W
R628	1-216-809-11	METAL CHIP	100	5%	1/10W
R630	1-216-841-11	METAL CHIP	47K	5%	1/10W
R631	1-216-841-11	METAL CHIP	47K	5%	1/10W
R632	1-216-833-11	METAL CHIP	10K	5%	1/10W
**********					
	A-1107-055-A	ANALOG-IN BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C101	1-124-261-00	ELECT	10uF	20%	50V
C130	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C131	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C201	1-124-261-00	ELECT	10uF	20%	50V
C230	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C231	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
		< DIODE >			
D812	6-500-848-01	DIODE MC2840-T112-1			
		< FERRITE BEAD >			
FB101	1-216-864-11	SHORT CHIP	0		
FB201	1-216-864-11	SHORT CHIP	0		
FB301	1-216-864-11	SHORT CHIP	0		

Ref. No.	Part No.	Description			Remark
		< JACK >			
J301	1-815-629-11	JACK (ANALOG IN)			
		< RESISTOR >			
R132	1-216-841-11	METAL CHIP	47K	5%	1/10W
R133	1-216-821-11	METAL CHIP	1K	5%	1/10W
R232	1-216-841-11	METAL CHIP	47K	5%	1/10W
R233	1-216-821-11	METAL CHIP	1K	5%	1/10W
**********					
	A-1106-769-A	AU-TC BOARD, COMPLETE (AEP,UK,CET)			
	A-1107-064-A	AU-TC BOARD, COMPLETE (US,CND)			
	A-1107-860-A	AU-TC BOARD, COMPLETE (MX,TW,SP,E51,AR,AUS)			
	A-1110-390-A	AU-TC BOARD, COMPLETE (KR) **********			
		< CAPACITOR >			
C101	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C103	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C104	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C105	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C106	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C107	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C109	1-126-964-11	ELECT	10uF	20%	50V
C110	1-126-964-11	ELECT	10uF	20%	50V
C111	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C112	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C113	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C114	1-126-160-11	ELECT	1uF	20%	50V
C115	1-126-964-11	ELECT	10uF	20%	50V
C116	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C117	1-126-964-11	ELECT	10uF	20%	50V
C120	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C121	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C122	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C123	1-165-128-11	CERAMIC CHIP	0.22uF		16V
C124	1-126-947-11	ELECT	47uF	20%	35V
C125	1-126-965-91	ELECT	22uF	20%	50V
C127	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C201	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C203	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C204	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C205	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C206	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C207	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C209	1-126-964-11	ELECT	10uF	20%	50V
C210	1-126-964-11	ELECT	10uF	20%	50V
C211	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C212	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C213	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C214	1-126-160-11	ELECT	1uF	20%	50V
C215	1-126-964-11	ELECT	10uF	20%	50V
C216	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C217	1-126-964-11	ELECT	10uF	20%	50V
C220	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C221	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C222	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C223	1-165-128-11	CERAMIC CHIP	0.22uF		16V
C224	1-126-947-11	ELECT	47uF	20%	35V
C225	1-126-965-91	ELECT	22uF	20%	50V
C227	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C317	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C324	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C328	1-126-933-11	ELECT	100uF	20%	16V
C360	1-130-479-00	MYLAR	0.0047uF	5%	50V
C361	1-130-479-00	MYLAR	0.0047uF	5%	50V
C362	1-130-487-00	MYLAR	0.022uF	5%	50V
C363	1-130-483-00	MYLAR	0.01uF	5%	50V
C368	1-126-947-11	ELECT	47uF	20%	35V
C371	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C372	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C374	1-130-483-00	MYLAR	0.01uF	5%	50V
C375	1-126-965-91	ELECT	22uF	20%	50V
C381	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C382	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C383	1-126-925-91	ELECT	470uF	20%	10V
C384	1-126-925-91	ELECT	470uF	20%	10V
C385	1-104-658-91	ELECT	100uF	20%	10V
		< CONNECTOR >			
* CN301	1-564-510-11	PLUG, CONNECTOR 7P			
		< DIODE >			
D318	8-719-063-79	DIODE 1N4002B			
D331	8-719-988-61	DIODE 1SS355TE-17			
		< EARTH TERMINAL >			
EP301	1-537-770-21	TERMINAL BOARD, GROUND			
		< IC >			
IC302	6-708-013-01	IC BD3402AKS2			
		< SHORT >			
JR301	1-216-864-11	SHORT CHIP	0		
JR302	1-216-864-11	SHORT CHIP	0		
		< TRANSISTOR >			
Q101	8-729-920-31	TRANSISTOR	DTC343TK		
Q103	8-729-920-31	TRANSISTOR	DTC343TK		
Q104	8-729-920-31	TRANSISTOR	DTC343TK		
Q201	8-729-920-31	TRANSISTOR	DTC343TK		
Q203	8-729-920-31	TRANSISTOR	DTC343TK		
Q204	8-729-920-31	TRANSISTOR	DTC343TK		
Q306	8-729-600-22	TRANSISTOR	2SA1235-F		
Q307	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q321	8-729-028-54	TRANSISTOR	KTC3205		
Q322	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q323	8-729-027-31	TRANSISTOR	DTA124EKA-T146		
		< RESISTOR >			
R103	1-216-833-11	METAL CHIP	10K	5%	1/10W
R104	1-216-833-11	METAL CHIP	10K	5%	1/10W
R105	1-216-825-11	METAL CHIP	2.2K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R106	1-216-841-11	METAL CHIP	47K	5%	1/10W
R107	1-216-841-11	METAL CHIP	47K	5%	1/10W
R108	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R109	1-216-849-11	METAL CHIP	220K	5%	1/10W
R110	1-216-853-11	METAL CHIP	470K	5%	1/10W
R111	1-216-813-11	METAL CHIP	220	5%	1/10W
R112	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R113	1-216-845-11	METAL CHIP	100K	5%	1/10W
R114	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R115	1-216-821-11	METAL CHIP	1K	5%	1/10W
				(US,CND,AEP,UK,CET)	
R115	1-216-864-11	SHORT CHIP	0 (MX,TW,KR,SP,E51,AR,AUS)		
R116	1-216-841-11	METAL CHIP	47K	5%	1/10W
R117	1-216-821-11	METAL CHIP	1K	5%	1/10W
R119	1-216-821-11	METAL CHIP	1K	5%	1/10W
R126	1-216-837-11	METAL CHIP	22K	5%	1/10W
R127	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R129	1-216-845-11	METAL CHIP	100K	5%	1/10W
R131	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R132	1-216-837-11	METAL CHIP	22K	5%	1/10W
R133	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R134	1-216-809-11	METAL CHIP	100	5%	1/10W
R135	1-216-833-11	METAL CHIP	10K	5%	1/10W
R136	1-216-821-11	METAL CHIP	1K	5%	1/10W
R203	1-216-833-11	METAL CHIP	10K	5%	1/10W
R204	1-216-833-11	METAL CHIP	10K	5%	1/10W
R205	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R206	1-216-841-11	METAL CHIP	47K	5%	1/10W
R207	1-216-841-11	METAL CHIP	47K	5%	1/10W
R208	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R209	1-216-849-11	METAL CHIP	220K	5%	1/10W
R210	1-216-853-11	METAL CHIP	470K	5%	1/10W
R211	1-216-813-11	METAL CHIP	220	5%	1/10W
R212	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R213	1-216-845-11	METAL CHIP	100K	5%	1/10W
R214	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R215	1-216-821-11	METAL CHIP	1K	5%	1/10W
				(US,CND,AEP,UK,CET)	
R215	1-216-864-11	SHORT CHIP	0 (MX,TW,KR,SP,E51,AR,AUS)		
R216	1-216-841-11	METAL CHIP	47K	5%	1/10W
R217	1-216-821-11	METAL CHIP	1K	5%	1/10W
R219	1-216-821-11	METAL CHIP	1K	5%	1/10W
R226	1-216-837-11	METAL CHIP	22K	5%	1/10W
R227	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R229	1-216-845-11	METAL CHIP	100K	5%	1/10W
R231	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R232	1-216-837-11	METAL CHIP	22K	5%	1/10W
R233	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R234	1-216-809-11	METAL CHIP	100	5%	1/10W
R235	1-216-833-11	METAL CHIP	10K	5%	1/10W
R236	1-216-821-11	METAL CHIP	1K	5%	1/10W
R326	1-216-857-11	METAL CHIP	1M	5%	1/10W
R328	1-216-809-11	METAL CHIP	100	5%	1/10W
R329	1-216-809-11	METAL CHIP	100	5%	1/10W
R345	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R346	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R347	1-216-821-11	METAL CHIP	1K	5%	1/10W
R349	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R350	1-216-837-11	METAL CHIP	22K	5%	1/10W
R351	1-216-833-11	METAL CHIP	10K	5%	1/10W
R358	1-216-801-11	METAL CHIP	22	5%	1/10W
R359	1-216-837-11	METAL CHIP	22K	5%	1/10W
R360	1-216-793-11	METAL CHIP	4.7	5%	1/10W
		< TRANSFORMER >			
T101	1-419-080-21	COIL			
T201	1-419-080-21	COIL			
T301	1-433-372-31	TRANSFORMER, BIAS OSCILLATION			
**********					
	A-1085-381-A	BD BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C101	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C102	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C103	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C104	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C105	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C107	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C108	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C109	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C110	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C111	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C112	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C113	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C131	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C132	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C133	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C201	1-128-995-21	ELECT CHIP	100uF	20%	10V
C202	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C203	1-128-995-21	ELECT CHIP	100uF	20%	10V
C204	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C205	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C206	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C207	1-128-995-21	ELECT CHIP	100uF	20%	10V
C208	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C210	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C213	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C214	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C215	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C217	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C218	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C219	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C220	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C221	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C222	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C223	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C224	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C226	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C227	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C228	1-128-590-11	ELECT CHIP	100uF	20%	6.3V
C230	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C232	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C251	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C252	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V

Ref. No.	Part No.	Description			Remark
C253	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C254	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C256	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C257	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C258	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C259	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C260	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C261	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C264	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C265	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C267	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C268	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C269	1-126-208-21	ELECT CHIP	47uF	20%	4V
C270	1-126-208-21	ELECT CHIP	47uF	20%	4V
C271	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C272	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C273	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C275	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C291	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C292	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C301	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C302	1-137-710-11	CERAMIC CHIP	10uF	20%	6.3V
C303	1-137-710-11	CERAMIC CHIP	10uF	20%	6.3V
C321	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C322	1-115-156-11	CERAMIC CHIP	1uF		10V
C323	1-128-995-21	ELECT CHIP	100uF	20%	10V
C401	1-128-396-11	ELECT CHIP	470uF	20%	10V
C404	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C405	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C406	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C424	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C451	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C452	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
		< CONNECTOR >			
CN102	1-770-706-11	CONNECTOR, FFC/FPC 23P			
CN301	1-770-425-11	CONNECTOR, FFC/FPC 16P			
		< IC >			
IC201	8-753-239-32	IC CXD3014-201R			
IC202	6-700-394-01	IC BA25BC0FP-E2			
IC402	6-705-808-01	IC BA5947FM-E2			
		< TRANSISTOR >			
Q321	6-551-120-01	TRANSISTOR	2SA2119K		
		< RESISTOR >			
R101	1-216-809-11	METAL CHIP	100	5%	1/10W
R102	1-216-809-11	METAL CHIP	100	5%	1/10W
R103	1-216-809-11	METAL CHIP	100	5%	1/10W
R104	1-216-809-11	METAL CHIP	100	5%	1/10W
R105	1-216-809-11	METAL CHIP	100	5%	1/10W
R107	1-216-809-11	METAL CHIP	100	5%	1/10W
R108	1-216-809-11	METAL CHIP	100	5%	1/10W
R109	1-216-809-11	METAL CHIP	100	5%	1/10W
R110	1-216-809-11	METAL CHIP	100	5%	1/10W
R111	1-216-809-11	METAL CHIP	100	5%	1/10W

Ref. No.	Part No.	Description			Remark
R112	1-216-809-11	METAL CHIP	100	5%	1/10W
R113	1-216-809-11	METAL CHIP	100	5%	1/10W
R114	1-216-864-11	SHORT CHIP	0		
R201	1-500-445-21	FERRITE, EMI (SMD)(2012)			
R202	1-500-445-21	FERRITE, EMI (SMD)(2012)			
R203	1-216-295-91	SHORT CHIP	0		
R207	1-216-295-91	SHORT CHIP	0		
R249	1-216-841-11	METAL CHIP	47K	5%	1/10W
R250	1-216-857-11	METAL CHIP	1M	5%	1/10W
R252	1-216-833-11	METAL CHIP	10K	5%	1/10W
R253	1-216-821-11	METAL CHIP	1K	5%	1/10W
R254	1-216-833-11	METAL CHIP	10K	5%	1/10W
R255	1-216-821-11	METAL CHIP	1K	5%	1/10W
R256	1-216-837-11	METAL CHIP	22K	5%	1/10W
R257	1-216-853-11	METAL CHIP	470K	5%	1/10W
R258	1-216-849-11	METAL CHIP	220K	5%	1/10W
R259	1-216-833-11	METAL CHIP	10K	5%	1/10W
R260	1-216-864-11	SHORT CHIP	0		
R265	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R266	1-216-821-11	METAL CHIP	1K	5%	1/10W
R267	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R268	1-216-833-11	METAL CHIP	10K	5%	1/10W
R269	1-216-809-11	METAL CHIP	100	5%	1/10W
R270	1-216-817-11	METAL CHIP	470	5%	1/10W
R271	1-216-857-11	METAL CHIP	1M	5%	1/10W
R272	1-500-445-21	FERRITE, EMI (SMD)(2012)			
R275	1-216-809-11	METAL CHIP	100	5%	1/10W
R276	1-216-841-11	METAL CHIP	47K	5%	1/10W
R277	1-216-809-11	METAL CHIP	100	5%	1/10W
R278	1-216-809-11	METAL CHIP	100	5%	1/10W
R279	1-216-809-11	METAL CHIP	100	5%	1/10W
R291	1-216-809-11	METAL CHIP	100	5%	1/10W
R292	1-216-809-11	METAL CHIP	100	5%	1/10W
R321	1-216-789-11	METAL CHIP	2.2	5%	1/10W
R322	1-216-789-11	METAL CHIP	2.2	5%	1/10W
R323	1-216-864-11	SHORT CHIP	0		
R324	1-216-845-11	METAL CHIP	100K	5%	1/10W
R325	1-216-864-11	SHORT CHIP	0		
R326	1-216-864-11	SHORT CHIP	0		
R401	1-216-295-91	SHORT CHIP	0		
R421	1-216-864-11	SHORT CHIP	0		
R423	1-216-833-11	METAL CHIP	10K	5%	1/10W
R451	1-216-837-11	METAL CHIP	22K	5%	1/10W
R452	1-216-833-11	METAL CHIP	10K	5%	1/10W
		< VIBRATOR >			
X202	1-767-408-21	VIBRATOR, CRYSTAL 16.9344MHz			
**********					
	A-4751-507-A	MOTOR BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C705	1-162-306-11	CERAMIC	0.01uF	20%	16V
C711	1-126-964-11	ELECT	10uF	20%	50V
		< CONNECTOR >			
CN701	1-785-333-11	PIN, CONNECTOR (LIGHT ANGLE) 7P			

Ref. No.	Part No.	Description			Remark
		< DIODE >			
D701	8-719-109-92	DIODE RD6.2ESB1			
		< IC >			
IC701	8-759-598-69	IC BA6956AN			
		< RESISTOR >			
R701	1-249-415-11	CARBON	680	5%	1/4W
R702	1-247-807-31	CARBON	100	5%	1/4W
		< SWITCH >			
S701	1-762-951-21	SWITCH, PUSH			
S702	1-762-951-21	SWITCH, PUSH			
**********					
	A-1107-054-A	HEADPHONE BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C136	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C236	1-162-974-11	CERAMIC CHIP	0.01uF		50V
		< FERRITE BEAD >			
FB121	1-216-864-11	SHORT CHIP	0		
FB221	1-216-864-11	SHORT CHIP	0		
FB321	1-216-864-11	SHORT CHIP	0		
		< JACK >			
J321	1-815-629-11	JACK (HEADPHONE)			
**********					
	A-1107-057-A	MAIN BOARD, COMPLETE (HPZ9:US,CND)			
	A-1110-029-A	MAIN BOARD, COMPLETE (HPZ9:SP,AUS)			
	A-1110-117-A	MAIN BOARD, COMPLETE (E51,AR)			
	A-1110-144-A	MAIN BOARD, COMPLETE (HPZ9:KR)			
	A-1110-152-A	MAIN BOARD, COMPLETE (HPZ7:CND)			
	A-1110-163-A	MAIN BOARD, COMPLETE (MX)			
	A-1110-202-A	MAIN BOARD, COMPLETE (AEP,UK,CET)			
	A-1110-251-A	MAIN BOARD, COMPLETE (HPZ7:TW,SP)			
	A-1110-276-A	MAIN BOARD, COMPLETE (HPZ7:KR)			
		**********			
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S			
		< CAPACITOR >			
C102	1-124-261-00	ELECT	10uF	20%	50V
C108	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C118	1-124-261-00	ELECT	10uF	20%	50V
C119	1-124-261-00	ELECT	10uF	20%	50V
C128	1-124-261-00	ELECT	10uF	20%	50V
C131	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C133	1-130-495-00	MYLAR	0.1uF	5%	50V
C135	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C136	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C137	1-126-965-91	ELECT	22uF	20%	50V
C138	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C202	1-124-261-00	ELECT	10uF	20%	50V
C208	1-162-974-11	CERAMIC CHIP	0.01uF		50V

Ref. No.	Part No.	Description			Remark
C218	1-124-261-00	ELECT	10uF	20%	50V
C219	1-124-261-00	ELECT	10uF	20%	50V
C228	1-124-261-00	ELECT	10uF	20%	50V
C231	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C233	1-130-495-00	MYLAR	0.1uF	5%	50V
C235	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C236	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C237	1-126-965-91	ELECT	22uF	20%	50V
C238	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C300	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C301	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C302	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C303	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C304	1-126-916-11	ELECT	1000uF	20%	6.3V
C305	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C306	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C307	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C308	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C310	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C314	1-126-925-91	ELECT	470uF	20%	10V
C315	1-126-925-91	ELECT	470uF	20%	10V
C316	1-126-925-91	ELECT	470uF	20%	10V
C319	1-126-926-11	ELECT	1000uF	20%	10V
C321	1-126-925-91	ELECT	470uF	20%	10V
C322	1-126-964-11	ELECT	10uF	20%	50V
C323	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C325	1-126-925-91	ELECT	470uF	20%	10V
C327	1-126-964-11	ELECT	10uF	20%	50V
C329	1-126-963-11	ELECT	4.7uF	20%	50V
C330	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C333	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C334	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C335	1-126-176-11	ELECT	220uF	20%	10V
C338	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C339	1-126-927-11	ELECT	2200uF	20%	10V
C340	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C354	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C355	1-126-176-11	ELECT	220uF	20%	10V
C356	1-104-658-91	ELECT	100uF	20%	10V
C357	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C386	1-126-933-11	ELECT	100uF	20%	16V
C389	1-126-964-11	ELECT	10uF	20%	50V
C390	1-126-927-11	ELECT	2200uF	20%	10V
C391	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C392	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C393	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C394	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C395	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C396	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C397	1-164-156-11	CERAMIC CHIP	0.1uF		25V
		< CONNECTOR >			
* CN302	1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P			
* CN303	1-564-709-11	PIN, CONNECTOR (SMALL TYPE) 7P			
CN304	1-779-560-21	CONNECTOR, FFC (LIF (NON-ZIF)) 23P			
CN305	1-784-731-11	CONNECTOR, FFC 9P (EXCEPT AEP,UK,CET)			
CN305	1-568-854-11	CONNECTOR, FFC 11P (AEP, UK, CET)			

Ref. No.	Part No.	Description	Remark
CN306	1-564-506-11	PLUG, CONNECTOR 3P	
CN307	1-784-784-11	CONNECTOR, FFC 23P	
* CN308	1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P	
CN309	1-564-509-11	PLUG, CONNECTOR 6P	
CN311	1-568-838-11	CONNECTOR, FFC 21P	
CN312	1-784-786-11	CONNECTOR, FFC 25P	
CN313	1-568-830-11	CONNECTOR, FFC 11P	
* CN314	1-764-334-11	PLUG, CONNECTOR 11P	
		< DIODE >	
D301	8-719-988-61	DIODE 1SS355TE-17	
D302	8-719-000-08	DIODE MC2838	
D303	8-719-000-08	DIODE MC2838	
D304	8-719-988-61	DIODE 1SS355TE-17	
D305	8-719-988-61	DIODE 1SS355TE-17	
D306	8-719-000-07	DIODE MC2836	
D308	6-500-848-01	DIODE MC2840-T112-1	
D309	8-719-000-08	DIODE MC2838	
D311	8-719-063-79	DIODE 1N4002B	
D312	8-719-063-79	DIODE 1N4002B	
D313	8-719-000-08	DIODE MC2838	
D314	8-719-988-61	DIODE 1SS355TE-17	
D315	6-500-848-01	DIODE MC2840-T112-1	
D316	8-719-000-07	DIODE MC2836	
D317	8-719-988-61	DIODE 1SS355TE-17	
D322	8-719-063-79	DIODE 1N4002B	
		< EARTH TERMINAL >	
EP201	1-537-770-21	TERMINAL BOARD, GROUND	
		< FERRITE BEAD >	
FB301	1-500-445-21	FERRITE, EMI (SMD)(2012)	
FB302	1-216-864-11	SHORT CHIP 0	
FB303	1-216-864-11	SHORT CHIP 0	
FB304	1-216-864-11	SHORT CHIP 0	
FB305	1-216-864-11	SHORT CHIP 0	
FB306	1-216-864-11	SHORT CHIP 0	
FB307	1-500-445-21	FERRITE, EMI (SMD)(2012)	
FB308	1-500-445-21	FERRITE, EMI (SMD)(2012)	
		< IC >	
IC304	8-759-701-59	IC NJM78M09FA	
IC305	8-759-071-48	IC TA7807S	
IC306	6-805-161-01	IC M30624MGP-A39FPU0	
IC307	6-703-546-01	IC TA7804LS	
IC308	6-703-546-01	IC TA7804LS	
IC309	6-701-680-01	IC PST3629NR	
IC310	8-759-231-57	IC TA7810S	
		< JACK >	
J302	8-749-019-25	IC TOTX141 (CD DIGITAL OUT)	
		< SHORT >	
JR001	1-216-864-11	SHORT CHIP 0	
JR002	1-216-864-11	SHORT CHIP 0	

Ref. No.	Part No.	Description	Remark
		< COIL >	
L102	1-422-009-13	COIL, AIR-CORE	
L202	1-422-009-13	COIL, AIR-CORE	
		< TRANSISTOR >	
Q102	6-550-889-01	TRANSISTOR 2SC5938-T112-1B	
Q202	6-550-889-01	TRANSISTOR 2SC5938-T112-1B	
Q301	8-729-027-43	TRANSISTOR DTC114EKA-T146	
Q302	8-729-040-76	TRANSISTOR KTA1273-Y-AT	
Q308	8-729-037-13	TRANSISTOR KTA1271Y	
Q309	8-729-027-52	TRANSISTOR DTC124EKA-T146	
Q310	8-729-037-13	TRANSISTOR KTA1271Y	
Q311	8-729-027-52	TRANSISTOR DTC124EKA-T146	
Q312	8-729-040-76	TRANSISTOR KTA1273-Y-AT	
Q313	8-729-027-43	TRANSISTOR DTC114EKA-T146	
Q314	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q315	8-729-040-76	TRANSISTOR KTA1273-Y-AT	
Q316	8-729-027-46	TRANSISTOR DTC114YKA-T146	
Q317	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q318	8-729-027-43	TRANSISTOR DTC114EKA-T146	
Q319	8-729-040-76	TRANSISTOR KTA1273-Y-AT	
Q320	8-729-027-43	TRANSISTOR DTC114EKA-T146	
		< RESISTOR >	
R101	1-215-890-11	METAL OXIDE 470 5% 2W	(HPZ7/HPZ9:KR,SP,E51,AR,AUS)
R101	1-215-892-11	METAL OXIDE 1K 5% 2W	(HPZ9:US,CND)
R102	1-260-103-11	CARBON 2.2K 5% 1/2W	(HPZ9:US,CND)
R118	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R120	1-216-837-11	METAL CHIP 22K 5% 1/10W	
R121	1-260-300-11	CARBON 4.7 5% 1/2W	
R123	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R124	1-216-845-11	METAL CHIP 100K 5% 1/10W	
R128	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R139	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R201	1-215-890-11	METAL OXIDE 470 5% 2W	(HPZ7/HPZ9:KR,SP,E51,AR,AUS)
R201	1-215-892-11	METAL OXIDE 1K 5% 2W	(HPZ9:US,CND)
R202	1-260-103-11	CARBON 2.2K 5% 1/2W	(HPZ9:US,CND)
R218	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R220	1-216-837-11	METAL CHIP 22K 5% 1/10W	
R221	1-260-300-11	CARBON 4.7 5% 1/2W	
R223	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R224	1-216-845-11	METAL CHIP 100K 5% 1/10W	
R228	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R239	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R301	1-216-845-11	METAL CHIP 100K 5% 1/10W	
R302	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R303	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R304	1-216-837-11	METAL CHIP 22K 5% 1/10W	
R305	1-216-841-11	METAL CHIP 47K 5% 1/10W	
R306	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R307	1-216-833-11	METAL CHIP 10K 5% 1/10W	(EXCEPT AEP,UK,CET)

Ref. No.	Part No.	Description			Remark
R308	1-216-833-11	METAL CHIP	10K	5%	1/10W (EXCEPT AEP,UK,CET)
R311	1-216-841-11	METAL CHIP	47K	5%	1/10W
R312	1-216-821-11	METAL CHIP	1K	5%	1/10W
R313	1-216-813-11	METAL CHIP	220	5%	1/10W
R314	1-216-841-11	METAL CHIP	47K	5%	1/10W
R315	1-216-821-11	METAL CHIP	1K	5%	1/10W
R316	1-216-833-11	METAL CHIP	10K	5%	1/10W
R317	1-216-833-11	METAL CHIP	10K	5%	1/10W
R318	1-216-833-11	METAL CHIP	10K	5%	1/10W
R319	1-216-837-11	METAL CHIP	22K	5%	1/10W
R320	1-216-833-11	METAL CHIP	10K	5%	1/10W
R321	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R322	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R324	1-216-833-11	METAL CHIP	10K	5%	1/10W
R325	1-216-833-11	METAL CHIP	10K	5%	1/10W
R327	1-216-821-11	METAL CHIP	1K	5%	1/10W
R330	1-216-841-11	METAL CHIP	47K	5%	1/10W
R331	1-216-841-11	METAL CHIP	47K	5%	1/10W
R332	1-216-841-11	METAL CHIP	47K	5%	1/10W
R333	1-216-841-11	METAL CHIP	47K	5%	1/10W
R334	1-216-841-11	METAL CHIP	47K	5%	1/10W
R335	1-216-841-11	METAL CHIP	47K	5%	1/10W
R336	1-216-841-11	METAL CHIP	47K	5%	1/10W
R337	1-216-841-11	METAL CHIP	47K	5%	1/10W
R338	1-216-841-11	METAL CHIP	47K	5%	1/10W
R340	1-216-841-11	METAL CHIP	47K	5%	1/10W
R341	1-216-864-11	SHORT CHIP	0		
R342	1-216-841-11	METAL CHIP	47K	5%	1/10W
R343	1-216-841-11	METAL CHIP	47K	5%	1/10W
R344	1-216-841-11	METAL CHIP	47K	5%	1/10W
⚠R348	1-212-857-00	FUSIBLE	10	5%	1/4W
R352	1-247-791-91	CARBON	22	5%	1/4W
R353	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R354	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R355	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R356	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R357	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R365	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R366	1-216-864-11	SHORT CHIP	0 (TW,KR,SP,AUS)		
R366	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (US,CND,MX,E51,AR)
R367	1-216-817-11	METAL CHIP	470	5%	1/10W (MX,E51,AR)
R367	1-216-821-11	METAL CHIP	1K	5%	1/10W (US,CND)
R367	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (AEP,UK,CET)
R368	1-216-841-11	METAL CHIP	47K	5%	1/10W
R369	1-216-833-11	METAL CHIP	10K	5%	1/10W
R370	1-216-833-11	METAL CHIP	10K	5%	1/10W
R371	1-216-833-11	METAL CHIP	10K	5%	1/10W
R372	1-216-841-11	METAL CHIP	47K	5%	1/10W
R373	1-216-841-11	METAL CHIP	47K	5%	1/10W
R374	1-216-841-11	METAL CHIP	47K	5%	1/10W
R375	1-216-821-11	METAL CHIP	1K	5%	1/10W
R381	1-216-841-11	METAL CHIP	47K	5%	1/10W
R382	1-216-821-11	METAL CHIP	1K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R385	1-216-841-11	METAL CHIP	47K	5%	1/10W
R386	1-216-841-11	METAL CHIP	47K	5%	1/10W
R387	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R388	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R389	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R390	1-216-841-11	METAL CHIP	47K	5%	1/10W
R391	1-216-841-11	METAL CHIP	47K	5%	1/10W
R400	1-216-809-11	METAL CHIP	100	5%	1/10W
R401	1-216-809-11	METAL CHIP	100	5%	1/10W
R402	1-216-809-11	METAL CHIP	100	5%	1/10W
R403	1-216-809-11	METAL CHIP	100	5%	1/10W
R404	1-216-833-11	METAL CHIP	10K	5%	1/10W
R405	1-216-809-11	METAL CHIP	100	5%	1/10W
R406	1-216-809-11	METAL CHIP	100	5%	1/10W
R407	1-216-809-11	METAL CHIP	100	5%	1/10W
R409	1-216-833-11	METAL CHIP	10K	5%	1/10W
R411	1-216-849-11	METAL CHIP	220K	5%	1/10W
R412	1-216-821-11	METAL CHIP	1K	5%	1/10W
R413	1-216-864-11	SHORT CHIP	0		
R417	1-216-833-11	METAL CHIP	10K	5%	1/10W
R418	1-216-809-11	METAL CHIP	100	5%	1/10W
R419	1-216-809-11	METAL CHIP	100	5%	1/10W
R420	1-216-841-11	METAL CHIP	47K	5%	1/10W
R421	1-216-809-11	METAL CHIP	100	5%	1/10W
R422	1-216-809-11	METAL CHIP	100	5%	1/10W
R423	1-216-809-11	METAL CHIP	100	5%	1/10W
R424	1-216-809-11	METAL CHIP	100	5%	1/10W
R425	1-216-809-11	METAL CHIP	100	5%	1/10W
R426	1-216-809-11	METAL CHIP	100	5%	1/10W
R427	1-216-809-11	METAL CHIP	100	5%	1/10W
R428	1-216-809-11	METAL CHIP	100	5%	1/10W
R429	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R430	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R431	1-216-809-11	METAL CHIP	100	5%	1/10W
R432	1-216-809-11	METAL CHIP	100	5%	1/10W
R433	1-216-809-11	METAL CHIP	100	5%	1/10W
R434	1-216-809-11	METAL CHIP	100	5%	1/10W
R435	1-216-809-11	METAL CHIP	100	5%	1/10W
R436	1-216-809-11	METAL CHIP	100	5%	1/10W
R437	1-216-809-11	METAL CHIP	100	5%	1/10W
R438	1-216-809-11	METAL CHIP	100	5%	1/10W
R439	1-216-809-11	METAL CHIP	100	5%	1/10W
R440	1-216-809-11	METAL CHIP	100	5%	1/10W
R441	1-216-809-11	METAL CHIP	100	5%	1/10W
R442	1-216-809-11	METAL CHIP	100	5%	1/10W
R443	1-216-809-11	METAL CHIP	100	5%	1/10W
R444	1-216-809-11	METAL CHIP	100	5%	1/10W
R445	1-216-809-11	METAL CHIP	100	5%	1/10W
R446	1-216-809-11	METAL CHIP	100	5%	1/10W
R447	1-216-809-11	METAL CHIP	100	5%	1/10W
R448	1-216-809-11	METAL CHIP	100	5%	1/10W
R449	1-216-809-11	METAL CHIP	100	5%	1/10W
R450	1-216-809-11	METAL CHIP	100	5%	1/10W
R451	1-216-809-11	METAL CHIP	100	5%	1/10W
R452	1-216-809-11	METAL CHIP	100	5%	1/10W
R453	1-216-809-11	METAL CHIP	100	5%	1/10W
R454	1-216-809-11	METAL CHIP	100	5%	1/10W
R455	1-216-809-11	METAL CHIP	100	5%	1/10W

Ref. No.	Part No.	Description			Remark
R456	1-216-809-11	METAL CHIP	100	5%	1/10W
R457	1-216-809-11	METAL CHIP	100	5%	1/10W
R458	1-216-809-11	METAL CHIP	100	5%	1/10W
R459	1-216-809-11	METAL CHIP	100	5%	1/10W
R460	1-216-809-11	METAL CHIP	100	5%	1/10W
R461	1-216-809-11	METAL CHIP	100	5%	1/10W
R463	1-216-809-11	METAL CHIP	100	5%	1/10W
R465	1-216-809-11	METAL CHIP	100	5%	1/10W
R466	1-216-809-11	METAL CHIP	100	5%	1/10W
R467	1-216-809-11	METAL CHIP	100	5%	1/10W
R468	1-216-809-11	METAL CHIP	100	5%	1/10W
R469	1-216-809-11	METAL CHIP	100	5%	1/10W
R470	1-216-809-11	METAL CHIP	100	5%	1/10W
R471	1-216-809-11	METAL CHIP	100	5%	1/10W
R472	1-216-809-11	METAL CHIP	100	5%	1/10W
R474	1-216-857-11	METAL CHIP	1M	5%	1/10W
R475	1-216-809-11	METAL CHIP	100	5%	1/10W
R476	1-216-809-11	METAL CHIP	100	5%	1/10W
R477	1-216-809-11	METAL CHIP	100	5%	1/10W
R478	1-216-809-11	METAL CHIP	100	5%	1/10W
R479	1-216-809-11	METAL CHIP	100	5%	1/10W
R480	1-216-809-11	METAL CHIP	100	5%	1/10W
R481	1-216-809-11	METAL CHIP	100	5%	1/10W
R482	1-216-809-11	METAL CHIP	100	5%	1/10W
R483	1-216-809-11	METAL CHIP	100	5%	1/10W
R484	1-216-809-11	METAL CHIP	100	5%	1/10W
R485	1-216-809-11	METAL CHIP	100	5%	1/10W
R486	1-216-809-11	METAL CHIP	100	5%	1/10W
R488	1-216-809-11	METAL CHIP	100	5%	1/10W
R489	1-216-809-11	METAL CHIP	100	5%	1/10W
R490	1-216-809-11	METAL CHIP	100	5%	1/10W
R491	1-216-809-11	METAL CHIP	100	5%	1/10W
R492	1-216-809-11	METAL CHIP	100	5%	1/10W
R494	1-216-809-11	METAL CHIP	100	5%	1/10W
R495	1-216-809-11	METAL CHIP	100	5%	1/10W
R497	1-216-809-11	METAL CHIP	100	5%	1/10W
		< RELAY >			
RY301	1-755-372-11	RELAY			
		< TERMINAL >			
TM301	1-536-708-81	TERMINAL BOARD, PUSH (4P)(SPEAKER)			
		< VIBRATOR >			
X301	1-567-098-41	VIBRATOR, CRYSTAL 32.768KHz			
X302	1-795-482-11	VIBRATOR, CERAMIC 16MHz			
**********					
	A-1107-052-A	PANEL (1) BOARD, COMPLETE			
		**********			
	4-249-151-01	HOLDER, FL TUBE			
	4-249-984-01	FILTER (FL TUBE)			
		< CAPACITOR >			
C805	1-124-261-00	ELECT	10uF	20%	50V
C820	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C821	1-162-927-11	CERAMIC CHIP	100PF	5%	50V

Ref. No.	Part No.	Description			Remark
C822	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C823	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C824	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C825	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C826	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C827	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C828	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C829	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C830	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C831	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C832	1-126-964-11	ELECT	10uF	20%	50V
C833	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C834	1-162-971-11	CERAMIC CHIP	0.001uF	10%	50V
C835	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C836	1-162-971-11	CERAMIC CHIP	0.001uF	10%	50V
C837	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C838	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
		< CONNECTOR >			
CN802	1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P			
		< DIODE >			
D801	8-719-063-92	DIODE SLR325MC-M-T31-NP			
D802	8-719-063-92	DIODE SLR325MC-M-T31-NP			
D803	8-719-063-92	DIODE SLR325MC-M-T31-NP			
D804	8-719-063-91	DIODE SLR325DC-P-T32			
D805	8-719-063-91	DIODE SLR325DC-P-T32			
D806	8-719-063-91	DIODE SLR325DC-P-T32			
D807	8-719-063-91	DIODE SLR325DC-P-T32			
D808	8-719-063-91	DIODE SLR325DC-P-T32			
D809	8-719-063-91	DIODE SLR325DC-P-T32			
D811	8-719-063-93	DIODE SLR325VC-N-T32			
D814	8-719-063-79	DIODE 1N4002B			
		< FLUORESCENT INDICATOR >			
FL701	1-519-808-11	INDICATOR TUBE, FLUORESCENT			
		< IC >			
IC801	8-759-643-83	IC uPD16315GB-3BS			
IC802	6-600-446-01	IC RPM7240-H18			
		< TRANSISTOR >			
Q800	8-729-600-22	TRANSISTOR	2SA1235-F		
Q805	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q806	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q807	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q808	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q809	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q811	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
		< RESISTOR >			
R801	1-216-813-11	METAL CHIP	220	5%	1/10W
R802	1-216-813-11	METAL CHIP	220	5%	1/10W
R803	1-216-813-11	METAL CHIP	220	5%	1/10W
R804	1-216-813-11	METAL CHIP	220	5%	1/10W
R805	1-216-817-11	METAL CHIP	470	5%	1/10W

Ref. No.	Part No.	Description			Remark
R806	1-216-809-11	METAL CHIP	100	5%	1/10W
R807	1-216-813-11	METAL CHIP	220	5%	1/10W
R808	1-216-813-11	METAL CHIP	220	5%	1/10W
R809	1-216-817-11	METAL CHIP	470	5%	1/10W
R810	1-216-821-11	METAL CHIP	1K	5%	1/10W
R811	1-216-821-11	METAL CHIP	1K	5%	1/10W
R812	1-216-821-11	METAL CHIP	1K	5%	1/10W
R813	1-216-821-11	METAL CHIP	1K	5%	1/10W
R814	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R815	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R817	1-216-813-11	METAL CHIP	220	5%	1/10W
R818	1-216-813-11	METAL CHIP	220	5%	1/10W
R819	1-216-813-11	METAL CHIP	220	5%	1/10W
R820	1-216-813-11	METAL CHIP	220	5%	1/10W
R821	1-216-817-11	METAL CHIP	470	5%	1/10W
R822	1-216-809-11	METAL CHIP	100	5%	1/10W
R823	1-216-813-11	METAL CHIP	220	5%	1/10W
R824	1-216-813-11	METAL CHIP	220	5%	1/10W
R825	1-216-817-11	METAL CHIP	470	5%	1/10W
R826	1-216-821-11	METAL CHIP	1K	5%	1/10W
R827	1-216-821-11	METAL CHIP	1K	5%	1/10W
R828	1-216-821-11	METAL CHIP	1K	5%	1/10W
R829	1-216-821-11	METAL CHIP	1K	5%	1/10W
R830	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R831	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R832	1-216-833-11	METAL CHIP	10K	5%	1/10W
R845	1-216-809-11	METAL CHIP	100	5%	1/10W
R846	1-216-809-11	METAL CHIP	100	5%	1/10W
R847	1-216-809-11	METAL CHIP	100	5%	1/10W
R848	1-216-809-11	METAL CHIP	100	5%	1/10W
R849	1-216-809-11	METAL CHIP	100	5%	1/10W
R850	1-216-809-11	METAL CHIP	100	5%	1/10W
R851	1-216-809-11	METAL CHIP	100	5%	1/10W
R852	1-216-809-11	METAL CHIP	100	5%	1/10W
R853	1-216-809-11	METAL CHIP	100	5%	1/10W
R854	1-216-833-11	METAL CHIP	10K	5%	1/10W
R855	1-216-817-11	METAL CHIP	470	5%	1/10W
R857	1-216-845-11	METAL CHIP	100K	5%	1/10W
R858	1-216-853-11	METAL CHIP	470K	5%	1/10W
R859	1-216-845-11	METAL CHIP	100K	5%	1/10W
R860	1-216-845-11	METAL CHIP	100K	5%	1/10W
R861	1-216-864-11	SHORT CHIP	0		
R862	1-216-809-11	METAL CHIP	100	5%	1/10W
R863	1-216-809-11	METAL CHIP	100	5%	1/10W
R864	1-216-809-11	METAL CHIP	100	5%	1/10W
R874	1-216-864-11	SHORT CHIP	0		
R875	1-216-864-11	SHORT CHIP	0		
R876	1-216-809-11	METAL CHIP	100	5%	1/10W
R877	1-216-821-11	METAL CHIP	1K	5%	1/10W
R878	1-216-821-11	METAL CHIP	1K	5%	1/10W
R879	1-216-864-11	SHORT CHIP	0		
R880	1-216-864-11	SHORT CHIP	0		
		< SWITCH >			
S701	1-762-875-21	SWITCH, KEYBOARD (POWER)			
S702	1-762-875-21	SWITCH, KEYBOARD (EJECT)			
S703	1-762-875-21	SWITCH, KEYBOARD (DISC SKIP/EX-CHANGE)			
S704	1-762-875-21	SWITCH, KEYBOARD (DISC 1)			
S705	1-762-875-21	SWITCH, KEYBOARD (DISC 2)			
S706	1-762-875-21	SWITCH, KEYBOARD (DISC 3)			
S707	1-762-875-21	SWITCH, KEYBOARD (DISC 4)			
S708	1-762-875-21	SWITCH, KEYBOARD (DISC 5)			
S711	1-762-875-21	SWITCH, KEYBOARD (DSGX)			
S712	1-762-875-21	SWITCH, KEYBOARD (TUNER)			
S713	1-762-875-21	SWITCH, KEYBOARD (CD)			
S714	1-762-875-21	SWITCH, KEYBOARD (TAPE)			
S715	1-762-875-21	SWITCH, KEYBOARD (FUNCTION)			
S716	1-762-875-21	SWITCH, KEYBOARD (CANCEL)			
S717	1-762-875-21	SWITCH, KEYBOARD (-)			
S718	1-762-875-21	SWITCH, KEYBOARD (+)			
S719	1-762-875-21	SWITCH, KEYBOARD (TUNE -)			
S720	1-762-875-21	SWITCH, KEYBOARD (TUNE +)			
S803	1-479-195-11	ENCODER (VOLUME)			
S804	1-478-061-11	ENCODER, ROTARY (PUSH ENTER)			
**********					
	A-1107-053-A	PANEL (2) BOARD, COMPLETE			
		**********			
		< RESISTOR >			
R833	1-216-813-11	METAL CHIP	220	5%	1/10W
R834	1-216-813-11	METAL CHIP	220	5%	1/10W
R835	1-216-813-11	METAL CHIP	220	5%	1/10W
R836	1-216-813-11	METAL CHIP	220	5%	1/10W
R837	1-216-817-11	METAL CHIP	470	5%	1/10W
R838	1-216-809-11	METAL CHIP	100	5%	1/10W
R839	1-216-813-11	METAL CHIP	220	5%	1/10W
R840	1-216-813-11	METAL CHIP	220	5%	1/10W
R841	1-216-817-11	METAL CHIP	470	5%	1/10W
		< SWITCH >			
S721	1-762-875-21	SWITCH, KEYBOARD (PLAY MODE/TUNING MODE)			
S722	1-762-875-21	SWITCH, KEYBOARD (REPEAT/FM MODE)			
S723	1-762-875-21	SWITCH, KEYBOARD (CD SYNC)			
S724	1-762-875-21	SWITCH, KEYBOARD (REC PAUSE/START)			
S725	1-762-875-21	SWITCH, KEYBOARD (ILLUMINATION)			
**********					
	A-1107-049-A	POWER BOARD, COMPLETE (HPZ9:US,CND)			
	A-1110-025-A	POWER BOARD, COMPLETE (AUS)			
	A-1110-112-A	POWER BOARD, COMPLETE (HPZ9:SP,E51)			
	A-1110-128-A	POWER BOARD, COMPLETE (HPZ9:KR,AR)			
	A-1110-149-A	POWER BOARD, COMPLETE (HPZ7:CND)			
	A-1110-160-A	POWER BOARD, COMPLETE (MX,TW)			
	A-1110-195-A	POWER BOARD, COMPLETE (AEP,UK,CET)			
	A-1110-217-A	POWER BOARD, COMPLETE (HPZ7:SP)			
	A-1110-386-A	POWER BOARD, COMPLETE (HPZ7:KR)			
		**********			
		< CAPACITOR >			
C901	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C902	1-126-964-11	ELECT	10uF	20%	50V
C903	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C904	1-126-964-11	ELECT	10uF	20%	50V
C907	1-136-165-00	FILM	0.1uF	5%	50V
C909	1-136-165-00	FILM	0.1uF	5%	50V
C910	1-126-943-11	ELECT	2200uF	20%	25V

Ref. No.	Part No.	Description			Remark
C911	1-136-165-00	FILM	0.1uF	5%	50V (HPZ7)
C911	1-137-354-11	FILM	0.1uF	5%	100V (HPZ9)
C912	1-136-165-00	FILM	0.1uF	5%	50V (HPZ7)
C912	1-137-354-11	FILM	0.1uF	5%	100V (HPZ9)
⚠C914	1-113-925-11	CERAMIC	0.01uF	20%	250V
C915	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C916	1-126-944-11	ELECT	3300uF	20%	25V
C919	1-126-767-11	ELECT	1000uF	20%	16V
C920	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C921	1-126-963-11	ELECT	4.7uF	20%	50V
C922	1-126-965-91	ELECT	22uF	20%	50V
		< CONNECTOR >			
* CN902	1-764-333-11	PLUG, CONNECTOR 10P			
CN905	1-564-321-00	PIN, CONNECTOR (3.96mm PITCH) 2P			
		< DIODE >			
D902	8-719-063-79	DIODE 1N4002B			
D903	8-719-063-79	DIODE 1N4002B			
D904	8-719-063-79	DIODE 1N4002B			
D905	8-719-063-79	DIODE 1N4002B			
D906	8-719-063-79	DIODE 1N4002B			
D907	8-719-063-79	DIODE 1N4002B			
D908	8-719-063-79	DIODE 1N4002B			
D909	8-719-063-79	DIODE 1N4002B			
D910	8-719-063-79	DIODE 1N4002B			
D911	8-719-988-61	DIODE 1SS355TE-17			
D912	8-719-063-79	DIODE 1N4002B			
D913	8-719-063-79	DIODE 1N4002B			
D914	8-719-063-79	DIODE 1N4002B			
D915	8-719-063-79	DIODE 1N4002B			
D916	8-719-000-08	DIODE MC2838			
D917	8-719-083-87	DIODE UDZSTE-1733B			
D918	8-719-069-54	DIODE UDZSTE-175.1B			
D919	8-719-988-61	DIODE 1SS355TE-17			
		< FUSE >			
⚠F901	1-533-452-12	FUSE, GLASS TUBE (DIA. 5) 4A/125V (HPZ7:CND)			
⚠F901	1-533-454-12	FUSE, GLASS TUBE (DIA. 5) 6.3A/125V (HPZ9:US,CND)			
⚠F901	1-533-471-12	FUSE, GLASS TUBE (DIA. 5) T4AL/250V (HPZ7:AEP,UK,MX,TW,KR,CET,SP)			
⚠F901	1-533-472-12	FUSE, GLASS TUBE (DIA. 5) 5A/250V (HPZ9:KR,SP,E51,AR,AUS)			
⚠F902	1-533-452-12	FUSE, GLASS TUBE (DIA. 5) 4A/125V (HPZ7:CND)			
⚠F902	1-533-454-12	FUSE, GLASS TUBE (DIA. 5) 6.3A/125V (HPZ9:US,CND)			
⚠F902	1-533-471-12	FUSE, GLASS TUBE (DIA. 5) T4AL/250V (HPZ7:AEP,UK,MX,TW,KR,CET,SP)			
⚠F902	1-533-472-12	FUSE, GLASS TUBE (DIA. 5) 5A/250V (HPZ9:KR,SP,E51,AR,AUS)			
⚠F903	1-533-451-12	FUSE, GLASS TUBE (DIA. 5) 3.15A/125V (HPZ7:CND)			
⚠F903	1-533-454-12	FUSE, GLASS TUBE (DIA. 5) 6.3A/125V (HPZ9:US,CND)			
⚠F903	1-533-468-12	FUSE, GLASS TUBE (DIA. 5) 2A/250V (HPZ7:MX,TW,SP)			
⚠F903	1-533-469-12	FUSE, GLASS TUBE (DIA. 5) 2.5A/250V (HPZ9:SP,E51)			
		< FUSE HOLDER >			
FH901	1-533-233-31	FUSE HOLDER 0A 0V			
FH902	1-533-233-31	FUSE HOLDER 0A 0V			
FH911	1-533-233-31	FUSE HOLDER 0A 0V			
FH912	1-533-233-31	FUSE HOLDER 0A 0V			
FH913	1-533-233-31	FUSE HOLDER 0A 0V (US,CND,MX,TW,SP,E51)			
FH923	1-533-233-31	FUSE HOLDER 0A 0V (US,CND,MX,TW,SP,E51)			
		< TRANSISTOR >			
Q901	8-729-037-03	TRANSISTOR	KTA1266GR-AT		
Q902	8-729-027-46	TRANSISTOR	DTC114YKA-T146		
Q903	8-729-027-26	TRANSISTOR	DTA114YKA-T146		
		< RESISTOR >			
R901	1-216-821-11	METAL CHIP	1K	5%	1/10W
R902	1-216-821-11	METAL CHIP	1K	5%	1/10W
R903	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
⚠R904	1-219-512-22	METAL	2.2M	5%	1/2W (US,CND)
R905	1-216-841-11	METAL CHIP	47K	5%	1/10W
R906	1-216-833-11	METAL CHIP	10K	5%	1/10W
R907	1-216-845-11	METAL CHIP	100K	5%	1/10W
R908	1-216-837-11	METAL CHIP	22K	5%	1/10W
R909	1-216-833-11	METAL CHIP	10K	5%	1/10W
R910	1-216-809-11	METAL CHIP	100	5%	1/10W
R911	1-216-809-11	METAL CHIP	100	5%	1/10W
R912	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
⚠R913	1-208-737-51	FUSIBLE	2.2	5%	1/4W
⚠R914	1-219-591-11	FUSIBLE	0.1	5%	1/2W
⚠R915	1-219-121-11	FUSIBLE	0.22	5%	1/4W
		< RELAY >			
RY901	1-755-324-11	RELAY			
		< SWITCH >			
⚠S901	1-786-055-21	SELECTOR, VOLTAGE (VOLTAGE SELECTOR) (SP,E51)			
		< TRANSFORMER >			
⚠T902	1-439-772-11	TRANSFORMER, POWER (MX,TW,KR,SP,E51,AR,AUS)			
⚠T902	1-439-779-11	TRANSFORMER, POWER (AEP,UK,CET)			
⚠T902	1-439-781-11	TRANSFORMER, POWER (US,CND)			
**********					
	A-1119-164-A	RELAY BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C802	1-126-786-11	ELECT	47uF	20%	16V
C821	1-126-933-11	ELECT	100uF	20%	16V

Ref. No.	Part No.	Description			Remark
C841	1-162-306-11	CERAMIC	0.01uF	20%	16V
C851	1-162-306-11	CERAMIC	0.01uF	20%	16V
		< CONNECTOR >			
CN801	1-568-864-11	CONNECTOR, FFC 21P			
CN802	1-568-951-11	PIN, CONNECTOR 2P			
CN805	1-506-468-11	PIN, CONNECTOR 3P			
* CN807	1-568-934-11	PIN, CONNECTOR 7P			
		< DIODE >			
D801	8-719-109-92	DIODE RD6.2ESB1			
D811	8-719-921-42	DIODE MTZJ-5.1A			
		< IC >			
IC801	8-759-598-69	IC BA6956AN			
IC811	8-759-598-69	IC BA6956AN			
		< RESISTOR >			
R801	1-249-413-11	CARBON	470	5%	1/4W
R802	1-247-807-31	CARBON	100	5%	1/4W
R811	1-249-413-11	CARBON	470	5%	1/4W
R812	1-247-807-31	CARBON	100	5%	1/4W
R851	1-249-425-11	CARBON	4.7K	5%	1/4W
R852	1-249-429-11	CARBON	10K	5%	1/4W
R853	1-249-425-11	CARBON	4.7K	5%	1/4W
R854	1-249-433-11	CARBON	22K	5%	1/4W
R855	1-249-425-11	CARBON	4.7K	5%	1/4W
R856	1-249-437-11	CARBON	47K	5%	1/4W
R857	1-249-425-11	CARBON	4.7K	5%	1/4W
R858	1-249-429-11	CARBON	10K	5%	1/4W
R859	1-249-425-11	CARBON	4.7K	5%	1/4W
R860	1-249-433-11	CARBON	22K	5%	1/4W
R861	1-249-425-11	CARBON	4.7K	5%	1/4W
R862	1-249-437-11	CARBON	47K	5%	1/4W
**********					
	A-4751-595-A	SW(A) BOARD, COMPLETE			
		**********			
		< SWITCH >			
S811	1-786-289-31	SWITCH, DETECTION (OPEN)			
S831	1-786-289-31	SWITCH, DETECTION (PUSH-CLOSE)			
**********					
	A-4751-596-A	SW(B) BOARD, COMPLETE			
		**********			
		< SWITCH >			
S821	1-786-084-21	SWITCH, DETECTION (LOD POSITION/CLOSE)			
**********					
	A-4751-598-A	SW(D) BOARD, COMPLETE			
		**********			
		< SWITCH >			
S851	1-786-382-21	SWITCH, PUSH (1 KEY)(12CM)			
**********					

Ref. No.	Part No.	Description	Remark
	A-1092-131-A	SW,DISC BOARD, COMPLETE	
		**********	
		< SWITCH >	
S861	1-771-495-21	SWITCH, PUSH (1 KEY)(DISC 1)	
S862	1-771-495-21	SWITCH, PUSH (1 KEY)(DISC 2)	
S863	1-771-495-21	SWITCH, PUSH (1 KEY)(DISC 3)	
S864	1-771-495-21	SWITCH, PUSH (1 KEY)(DISC 4)	
S865	1-771-495-21	SWITCH, PUSH (1 KEY)(DISC 5)	
**********			
	A-1106-794-A	THERMISTOR BOARD, COMPLETE	
		**********	
		< THERMISTOR (POSITIVE) >	
THP822	1-807-796-11	THERMISTOR	
**********			
		MISCELLANEOUS	
		**********	
10	1-796-352-61	DECK, MECHANICAL (CMAL5Z225A)	
106	1-787-319-11	FAN, DC	
⚠107	1-769-079-41	CORD, POWER (KR)	
⚠107	1-769-744-81	CORD, POWER (UK)	
⚠107	1-775-790-71	CORD, POWER (AUS)	
⚠107	1-827-226-31	CORD, POWER (MX)	
⚠107	1-827-597-31	CORD, POWER (TW)	
⚠107	1-829-387-11	CORD, POWER (AR)	
⚠107	1-830-188-11	CORD, POWER (AEP,CET,SP,E51)	
⚠107	1-830-190-11	CORD, POWER (US,CND)	
109	1-693-684-11	TUNER (FM/AM)(US,CND)	
109	1-693-685-11	TUNER (FM/AM)(MX,TW,SP,E51,AR,AUS)	
109	1-693-686-11	TUNER (FM/AM)(AEP,UK,CET)	
109	1-693-687-11	TUNER (FM/AM)(KR)	
110	1-828-963-11	WIRE (FLAT TYPE)(11 CORE)	
114	1-829-017-11	WIRE (FLAT TYPE)(21 CORE)	
1112	1-452-925-21	MAGNET ASSY	
⚠1206	8-820-244-01	OPTICAL PICK-UP KSM-215DCP/C2NP	
1208	1-827-992-11	WIRE (FLAT TYPE)(16 CORE)	
M701	X-4955-496-1	MOTOR (PULLEY) ASSY (LOD)	
M871	A-1060-630-A	MOTOR ASSY (LOD)	
M881	A-1060-630-A	MOTOR ASSY (ELV)	
S101	1-771-853-11	SWITCH, DETECTION (LIMIT)	
S881	1-478-706-11	ENCODER, ROTARY	
⚠T901	1-443-681-11	TRANSFORMER, POWER (HPZ7:MX,TW,KR,SP)	
⚠T901	1-443-682-11	TRANSFORMER, POWER (HPZ7:CND)	
⚠T901	1-443-683-11	TRANSFORMER, POWER (AEP,UK,CET)	
⚠T901	1-443-685-11	TRANSFORMER, POWER (HPZ9:KR,SP,E51,AR,AUS)	
⚠T901	1-443-686-11	TRANSFORMER, POWER (HPZ9:US,CND)	

MEMO

REVISION HISTORY

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Ver.	Date	Description of Revision
1.0	2005.03	New
1.1	2005.05	Addition of Mexican model, Singapore model, Taiwan model and Korea model for HCD-HPZ7 Addition of Australian model, E51 model, Singapore model, Argentina model and Korea model for HCD-HPZ9